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# BUSINESS WEEK

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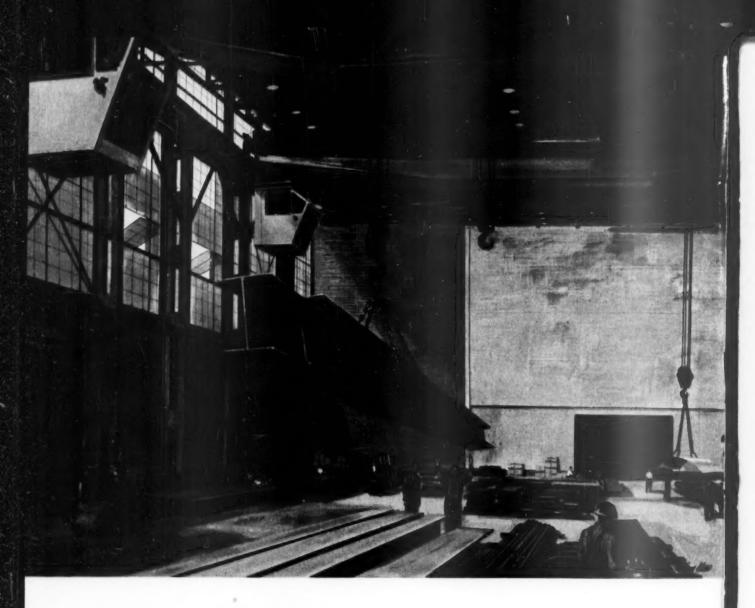
Germany Votes
ON EUROPE'S FUTURE
PAGE 160



McKay of Interior: In the public interest, more private initiative (page 63)

A McGRAW-HILL PUBLICATION

SEPT. 12, 1953



## ONE PROBLEM SETTLED . . . FOR GOOD!

You can't keep production schedules up when plant equipment is constantly down for maintenance! And manufacturers, both those who use machines and those who build them, know how to settle bearing problems for good—they use Bower Spher-O-Honed Bearings!

They've found that important Bower design features—liberal oil groove, spherical rollhead and higher flange surfaces, precisionhoned races—virtually eliminate bearing failure. What's more, the exceptionally high quality and built-in durability of Bower Spher-O-Honed Bearings keep machines operating at peak capacity under the most rugged conditions.

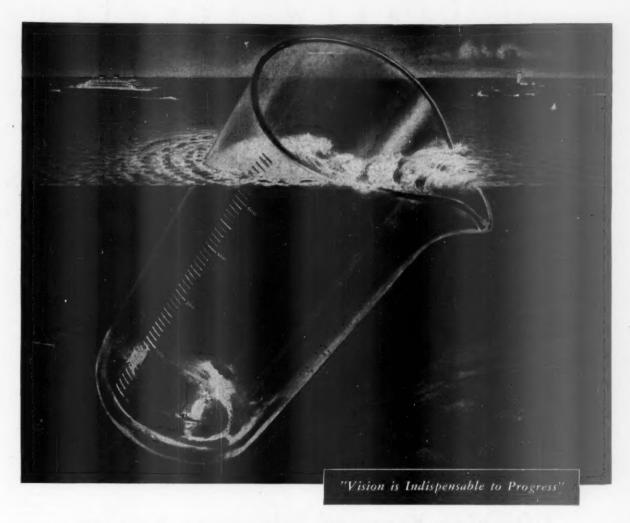
Bower builds a complete line of tapered, straight and journal roller bearings to meet the requirements of virtually every type of product that uses bearings. Is yours one? Consult a Bower engineer soon.

BOWER ROLLER BEARING CO. . DETROIT 14, MICHIGAN





BOWER



# How much salt water contains 5-million tons of metal?

The chemical industry, in extracting magnesium from sea water, works one of its many modern miracles. In each cubic mile there are 5-million tons of this ultralightweight metal!

Through equally fantastic chemical magic, this industry turns soybeans into paint, natural gas into television cabinets and coal into shower curtains! Even more fabulous is the ability of the research chemist to take apart various forms of matter, molecule by molecule, and put them together to form entirely new substances

never found in nature.

Basic chemical raw materials, previously imported or refined at great expense, now are produced synthetically in volume from abundant local materials. From hydro-carbons alone the chemical industry now produces over fifty-thousand compounds.

The vast changes in our econ-

omy and the measurable advance toward continental self-sufficiency brought about by the chemical industry are typical of the forward strides being made by progressive American companies.

Only under a system of free competitive enterprise can men exercise the vision and initiative essential to such progress.

## BANKERS TRUST COMPANY

16 WALL STREET, NEW YORK 15, N. Y.

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION





O'SULLIVANS AT HOME. Clarence M. O'Sullivan, construction foreman with 34 years' experience; daughter-in-law Marilyn, clerical assistant for 5 years, and Mr. O'Sullivan's sons: Don, an installer with 7 years' service, and Clarence C., cable repairman with 13 years' service.

## Fifty-nine Years of Telephone Service

FATHER, TWO SONS AND DAUGHTER-IN-LAW ALL WORK FOR THE TELEPHONE COMPANY



TELEPHONE MAN OF 1970. Clarence C. O'Sullivan's young son, Mike, likes to pretend he's a "telephone man." And he will be when he grows up, if he follows in his family's footsteps.

When Clarence M. O'Sullivan started to work for the telephone company, back in 1919, he started a family tradition. Since then two sons and a daughter-in-law have also decided on telephone careers. They have a total of fifty-nine years' service.

A recent U. S. Government survey gives some interesting figures on the length of time men and women have served with their present employers.

By comparison, the length of service for women in the Bell System is twice the average for women in other industries. For telephone men it is nearly three times the average for other industries.

This longer length of service, which indicates job satisfaction, also has a value to the telephone user. It helps us give better service to everyone.

**Bell Telephone System** 



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ADVERTISING & BUSINESS MANAGER Herman C. Sturm



BUSINESS WEEK . SEPT. 12 . NUMBER 1254

E E K "I thought I'd have to see the Swami to find the right



until an officer of our bank Marine Midland-introduced me to a man who really knows local real estate."

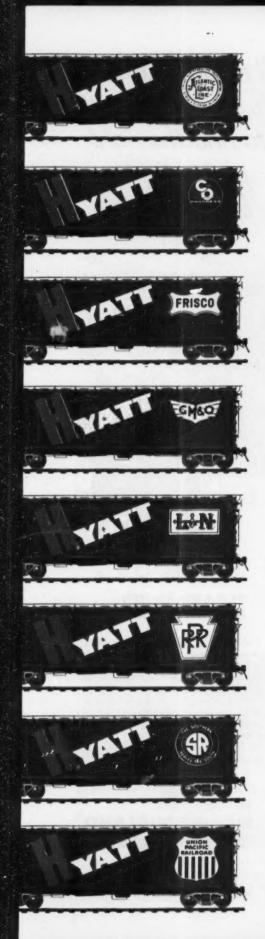
Authentic firsthand facts about business properties and market conditions almost anywhere in New York State are often available when the Marine Midland Trust Company of New York is your bank,

The 12 Marine Midland Banks have 122 offices throughout the state. Each officer knows his own area and its people as only a local resident can. Let us show you how this "next-door-neighbor" knowledge can be useful in your business.

## MARINE MIDLAND TRUST COMPANY

of New York

120 BROADWAY . NEW YORK Member Federal Deposit Insurance Corporation





Hyatts for freight...1765 cars

## to serve America better!

Here's the record: During the past year, eight major railroads have ordered Hyatt-equipped freight cars! Once again, the railroads have shown that they're always alert to modernization—always ready to adopt a superior product if it will help them to provide more efficient transportation. And the superiority of Hyatt Roller Bearings (replacing old-style, friction-type bearings) has been proved—by years of excellent service on passenger cars and diesel locomotives! Now available for freight cars, Hyatts eliminate the hot box problem, and they mean smoother starts and higher running speeds—with less damage to merchandise and important savings in maintenance costs! When you think of railroad progress, think of HYATT—Running Mate of Diesel Freight!

HYATT bearings division, GENERAL MOTORS corp.

# Presenting a <u>new</u> duplicator with a <u>world-famous</u> name

# GESTETNER 260 with CONTINUMATIC INKING



From 72 years of duplicating experience comes this great new achievement . . . continuous, automatic inking. Just set the selector to the ink density you want, dial the number of copies, and your Gestetner does the rest — cleanly, quietly, efficiently.

## "Here's why I like our Gestetner"

"Up to now, dirty, smudged fingers and ink-stained dresses have always been an office problem. But, although we use the Gestetner constantly, my hands are clean, my clothes unspotted. You just don't know what a relief it is!"



## Cuts in half the cost of letters, forms, reports!

You'll be delighted at the number of jobs the Gestetner can take over, the money and time it can save. New electronic stenciling makes it possible to reproduce almost anything you wish . . . in any of a dozen attractive colors. And you can change from one color to another quickly, easily—with no need to wash rollers or drums!

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Forget pads, cans, brushes! Your operator merely clips a tube of paste ink into the machine—without fuss or mess. No other duplicator approaches the Gestelner's ease, simplicity and cleanliness of operation.... Yet, with all its advantages, the Gestelner 260 costs no more than comparable equipment—why not request a demonstration today?

## Gestetner

Duplicating at its finest . . . since 1881

Gestetner Duplicator Corp., Dept. 20, 50 McLean Ave., Yonkers 5, N. Y.

For full details, actual duplicated samples and the name of your nearest distributor, fill in and mail the coupon today.

Name

Company

Address

City, Zone, State



## How Honeywell Customized

Temperature Control can help you

## Learn about your business from a Motel

#### Why a customized control system is becoming a "must" for all types of buildings

It's as true for any kind of building—of any size—as it is for a motel:

It's important to recognize the value of proper temperature control.

Here's what's needed to give proper control—resulting in genuinely modern comfort or new industrial efficiency, or both:

Enough controls of the right kind, properly installed—and backed by a dependable service organization.

That's a taller order than a lot of people seem to think. And it's just the spot to call on

Honeywell Customized Temperature Control.

Key word in this concept is "customized." This means that whatever your control requirements, a Honeywell Customized Temperature Control System designed to your needs is your answer. This applies to heating and cooling, ventilation and humidity control, as well as industrial control.

The story, in brief, of how Honeywell Customized Temperature Control was used to solve specific occupancy, use and exposure problems in the Oregon Motel in Eugene, Oregon, is told under the pictures at right.

The techniques used, applied to your particular problems, could readily be the solution.

Customer-eye-view of the Oregon Motel, located on the outskirts of Eugene, Oregon. Every room of the motel is equipped with a Honeywell thermostat.



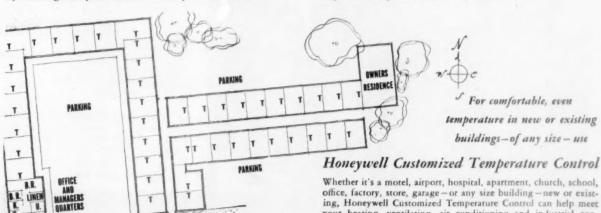


Every room in the Oregon Motel is equipped with its own thermostat, as indicated by the T's on the floor plan below. The main reason this was done was to give guests personal control over their own comfort - a big factor in the motel business. For as the motel business becomes more competitive, guests can and do demand even greater comfort. This problem can be met, easily and completely, by installing Honeywell Customized Temperature Control.

OFFICE .



Other important problems solved with a separate Honeywell thermostat and radiator valve in each room include exposure and occupancy factors. Rooms on the south receive more winter sunshine, require less heat than rooms on the north. Individual thermostats easily meet this problem by calling for just the right amount of heat on an individual room basis. And when rooms are unoccupied, temperatures may be cut back to save fuel.



your heating, ventilating, air conditioning and industrial control problems. For full facts on Honeywell Customized Temperature Control. call your architect, heating engineer or local Honeywell office. There are 104 Honeywell offices across the nation. Or mail the coupon today.



Walter Dennis, owner of the Oregon Motel, says:

"Since installing Honeywell Customized Temperature Control, fuel bills have been 40% lower and occupancy has increased 9%. It's not hard to see why I like the installation. I like concrete results -and that's just what I got."

	Hist in Controls
	***************************************
	MINNEAPOLIS-HONEYWELL REGULATOR CO.
	Dept. BW-9-204, Minneapolis 8, Minnesota
į	Gentlemen:
	I'm interested in learning more about Honeywell Customized

a companient annue	••		
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Firm Name			
Address			
City	Zane	State	

## ONLY

# MOBILIFT

STAND-UP FORK LIFT TRUCKS

Give you



- . No Gears to Shift.
- · Speeds All Movements.



#### MOBILIFT MOBILITY

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  Inner Turning Radius
- Excels in Close Quarters



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- . All Around Visibility.



Only MOBILIFT Stand-Up type Fork Lift Trucks give you Lev-R-Matic push-pull controls for forward-back, elevating, tilting...THERE ARE NO GEARS TO SHIFT! Only MOBILIFTS give you MOBI-

Only MOBILIFTS give you MOBILIFT agility and quickness with their compact design, short over-all length, 360° steering and ZERO inner turning

radius. They excel in congested areas.

Only MOBILIFTS give you perfected Stand-Up models—for more work,

taster work, less operating expenses.

To these plus advantages add MOBI-LIFT air-cooled 3-cylinder engine's reliable power and easy accessibility for minimum service and repair...The

YOU'LL ACCOMPLISH MORE, WORK FASTER, EARN MORE WITH MOBILIFT FORK LIFT TRUCKS. Write for complete information.



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2317 W. 18th, CHICAGO • 790 Patterson Ave., E. RUTHERFORD, N. J.
1113 Spring St. N. W., ATLANTA • 2724 Taylor St., DALLAS
2730 San Pablo Ave., BERKELEY

answer is obvious:

## READERS REPORT

Alas, poor Yorick. . .

Dear Sir:

In regard to your August 15 article on Earthmoving (page 56), you expressed a desire for ideas for a gravedigger.

To whom shall I send a sketch and description of my brainstorm?

DANIEL DONNELLY, JR. NEW YORK, N. Y.

Dear Sir:

Re your Earthmoving article. . . . Sherman Products, Inc. introduced in 1950 an all hydraulic controlled tractor mounted grave-digger, of which 708 are in use today in cemeteries . . and which will dig a grave better and cheaper in thirty minutes than a man working eight hours with pick and shovel. . . .

G. B. SHERMAN

PRESIDENT
SHERMAN PRODUCTS, INC.
ROYAL OAK, MICH.

• We have also received documentary evidence of grave-digging equipment from several other manufacturers, including Cone Automatic Machine Co., Inc., International Harvester, and Badger Machine Co.

## With Sympathy

Dear Sir:

As an admirer of your magazine and a constant reader who thinks the idea of that Personal Business page is a corker . . . I was especially interested in your issue of August 8 (page 131) because of the sound advice you gave about planning for the handling of estates.

... In your paragraph about how to find an experienced executor, your mention of the lack of personal touch by banks in their trust departments sort of "got me." I don't know how it is with other banks, though I presume they realize the importance of personal attention, but the staff of this trust company is made up of individuals ... who are carefully chosen for their work, and whose mission is to render our various services in the most efficient and sympathetic way possible. . . .

On the other side of the page, you will probably be hearing from others concerning your statement about fees for executors. This . . does not apply to Massachusetts, nor some other states. . . In Massachusetts fees are subject to approval by Probate Court, and in New York, I believe, a Surrogate Court. . . .

Your magazine has such wide and

## when you buy presses... take a close look at

## LUBRICAT

DANLY gives you a completely automatic oil lubrication system—built in "preventive maintenance"—that assures an ample supply of lubricant to all wear points at all times. It saves hundreds of hours of routine maintenance, press down time is greatly reduced — and your presses are positively protected against damage due to lubrication failure or neglect!



AUTOMATIC GUARDIAN OF PRESS LUBRICA-TION . . . This Danly-engineered switch monitors the flow of oil to the vital drive-shaft bearings. Should oil flow stop in any line, this switch also stops the press im-mediately before serious damage occurs and also indicates the faulty line.



MECHANICAL PRESSES . . 50 TO 3000 TONS

HYDRAULIC METALWORKING EQUIPMENT

CONTINUOUS AUTOMATIC OIL LUBRICA-TION INCLUDES GIBS . . . Cutaway view of typical Danly Press shows how vital wearing surfaces are protected by the Danly com-plete automatic oil lubrication (in color) system. Oil gib lubrication permits extra close slide adjustment, longer die life.

It costs less to run a DANLY PRESS!



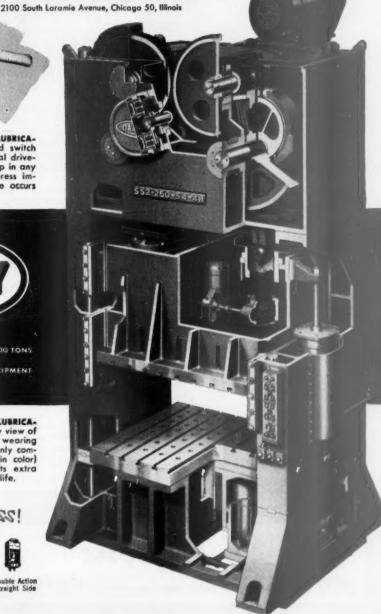














important circulation that I think it is a constructive idea to bring these two points to your attention. . . .

RALPH M. EASTMAN

VICE-PRESIDENT STATE STREET TRUST COMPANY BOSTON, MASS.

• We used the 2% figure simply to give readers a rough idea of what they might expect. This does vary from state to state, of course.

#### Management in 1980

Dear Sir:

In your special report on Tomorrow's Management [BW-Aug.15'53,p158] ... you say that the emphasis in management is likely to shift again to obtaining capital. This seems to reflect the popular fallacy that because automation requires a very much higher capital investment per worker, it also requires a very much higher capital investment per unit produced. There is no evidence for this assumption; in fact all our experience to date would indicate that the capital requirements, per unit produced, will not be materially higher than they are for present day methods of production. Of course, there will be a transition period during which management will be concerned with obtaining the capital for converting nonautomatic to automatic production; and that is likely to be an expensive process, so much so that many managements may well find it more economical to start building a new automatic plant from scratch. But the automatic plant as such does not of necessity require a greater capital investment per unit of production.

The real problem is almost certainly going to be marketing. For, while the automatic plant will produce very much more cheaply, it will be able to produce only if running continuously. . . .

You further state that automation is likely to shift management's thinking back from decentralization to centralization. The experience of anybody who has done any work in this field is the exact opposite. In the first place, automation makes decentralization possible; for the major obstacle to decentralization today is the fact that the controls and measurements we have available today are not good enough-and above all not fast enough-to permit local autonomy and yet maintain the necessarv central direction and control. But also, as you yourself state, under automation the functional type of organization, in which manufacturing, purchasing, maintenance, sales, etc., are all separate activities, becomes very difficult as the whole process is an integrated process. This means that we need integrated units at the lowest possible



## Johns-Manville Asbestos Movable Walls provide offices when and where you want them

YOU can rearrange existing offices or partition new space quickly and economically with Johns-Manville Asbestos Movable Walls.

These flush-type, asbestos panels have a clean, smooth surface that's hard to mar, easy to maintain... and extra strong to withstand shock

and abuse. Also, they are light in weight, easy to install and relocate. The "dry wall" method of erection assures little or no interruption to normal business routine.

Johns-Manville Asbestos Movable Walls may be used as ceilinghigh or free-standing partitions. The complete wall, including doors, glazing and hardware, is installed by Johns-Manville's own construction men under the supervision of trained J-M engineers—responsibility is undivided.

An estimate will convince you that the cost of J-M Movable Walls compares favorably with other types of wall construction. For details write Johns-Manville, Dept. BW, Box 158, N. Y. 16, N. Y. In Canada write 199 Bay St., Toronto 1, Ont.

Johns-Manville ASBESTOS Movable Walls-

## **HOW OUT-OF-DATE IS YOUR** INTERCOM SYSTEM?



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## TODAY'S MOST MODERN AND COMPLETE TELEPHONE INTERCOMMUNICATION!



Noisy "voice box" amplifiers that disturb Noisy "voice box" amplifiers that disturb your efficiency. broadcast-type intercom systems that give your conversations no privacy.. the use of outside telephones for intercom calls, tying up your lines so customers can't get through.. these costly inconveniences are now out of date!

Modern telephone engineering has developed a fully automatic, private telephone system that provides the complete answer to every intercommunication requirement. Whether you need 5 or 6 stations or 1000, Connecticut PRIVATE LINE systems give you the advantages of dial-operated service, independent of your regular city phones. Newly designed circuits put every important service for convenient intercommunication at your forgering. munication at your fingertips.

Because it does so much, your PRIVATE LINE system saves on monthly rental charges for unnecessary telephone lines and equipment. And you profit in time saved, in boosted output, in greater employee and customer satisfaction.

Send the coupon today for the PRIVATE LINE story and an on-the-spot analysis that will show you actual dollar savings from PRIVATE LINE service in your business. There is no obligation.

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- ☐ Send me the full story of PRIVATE LINE systems.
- We would like a survey of our intercommunication needs and actual savings.

Company\_

CONNECTICUT TELEPHONE & ELECTRIC CORPORATION

Subsidiary of Great American Industries

level-another definition of decentralization. Above all, the speed with which decisions have to be made at the local level, and the fact that they are all decisions affecting the performance of the whole, makes absolutely necessary a degree of local autonomy and responsibility unknown today even in the most "decentralized" unit.

Finally, your article states that automation is likely to de-emphasize the concern with people in management today. This seems to be based on the belief that it is the number of people that causes problems of personnel, human relations and human organization. Actually automation means a tremendous increase in the number of management people-four or fivefold I would say-a tremendous increase in the number of technical and professional people, and a tremendous increase in the number of highly trained workers. The total manpower needed is, of course, very much smaller than that of a nonautomatic plant, even of the most highly mechanized mass production plant of today. But the people who are needed are precisely the people most difficult to manage—and also the people in whom management has an investment many times the investment in the skilled worker of today. Add to this that the management people needed have to have a degree of technical knowledge unknown today, while the technical people needed have to have a degree of management insight unknown today, and finally that the "production worker" of tomorrow will have to understand practically the entire plant and the entire process in order to be able to maintain the equipment in good running order—and we'll have problems of personnel, of organization, of human relations, which, while perhaps quite different from those management is familiar with today, are certainly not going to be easier or less important. . . .

PETER F. DRUCKER

MONTCLAIR, N. J.

#### Missed the Point

There appears to be an error in your Figures of the Week, page 23 in the edition of August 22, 1953.

Under Business Failures, you give the 1946 weekly average as 217. There were only 1129 failures according to Dun & Bradstreet in the year 1946. It looks as if somebody missed a decimal point for it figures 21.7 instead of 217. Should not this figure be stated at 22 instead of 217?

WALTER E. DAVIS

BOSTON, MASS.

• Yes. See page 23.

ABRASIVES THAT GIVE YOUR OPERATORS THE

# True "TOUCH of GOLD"



Give a good workman the best tools to work with - and watch him turn out superior work. You can have "Touch of Gold" Men on all your grinding and finishing operations if you specify Norton and Behr-Manning abrasives. Your men will be adding value to your products and profit-margin to your operations. Norton and Behr-Manning are the world's leaders in abrasives.

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A "Touch of Gold." An endless belt of Behr-Manning's RESINIZED® METALITE® cloth, over contact wheel, polishes auto grilles efficiently - minimizes rejects.



A "Touch of Gold." A Norton 32 ALUNDUM G Bond wheel on a Norton tilting-head cutter and tool grinder results in big savings in toolroom grinding costs.

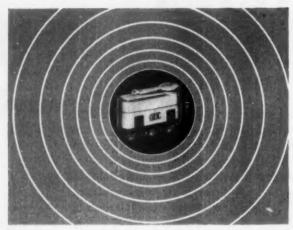
Making better products ... to make other products better





NORTON NORTON BEHR-MANNING

## how short cuts to tomorrow's new products develop from cooperation of designers and MICRO Switch field engineers today



Tomorrow will belong to those manufacturers who are actively striving today to design new products for new jobs—or to redesign products to do their jobs better.

Success in such new designs often hinges on the skillful selection of even the smallest component parts—components that can be counted on to perform their function day after day, so accurately and efficiently that their presence is almost forgotten.

Prior to MICRO's pioneer efforts in the precision switch field, many of today's successful designs would have been difficult or impossible. MICRO switches, from the first, have been a short cut to better products. The small size, light weight, precise action and absolute dependability of MICRO switches swept away many old design conceptions.

Through the use of MICRO switches in his product, more than one manufacturer has become a leader in his field. By including MICRO switches, many designers have added greater reliability, more precise action and longer life to products that meet new demands or fill present needs more acceptably.

Design problems which "stumped the experts" have been solved through the cooperation of industrial designers and MICRO field engineers. This cooperation has resulted in the

development of a vast reservoir of precision switch types. It may easily provide your short cut to better design.

Let us tell you about a few recent developments:

—A hermetically sealed switch which has proved itself in government atomic plants. These switches are called upon to operate accurately and over a long-life period in liquids that are "hot" in more ways than one. As the development of atomic power for commercial use becomes more and more of a factor in industry, MICRO, already able to supply switches to meet such requirements, will be fully prepared.

—A fast-action switch to meet the demands of a manufacturer of "overload relays." These relays operate thermally to stop a motor in case of overload. A special type of MICRO switch enabled him to produce his equipment in lighter weight and smaller size than was hitherto possible. The switch operates magnetically in case of a short circuit or quick overload and must be reset manually before operation can be resumed.

—A small low-torque switch which has saved many thousands of dollars worth of electrical equipment. In such devices, the concentration of power in smaller and smaller space frequently requires a flow of air to cool equipment and prevent tube burnout. Many a manufacturer of electronic devices depends on this type of MICRO switch to shut off the power instantly in case the air stream is not moving.

Meeting such varied problems of industry has resulted in over 6000 different types of MICRO switches, each contributing to "better products through better design,"

MICRO

MAKERS OF PRECISION SWITCHES

FREEPORT, ILLINOIS



A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

# POCO HTB GREASE

# hangs on through HEAT and WET!

Proves usefulness over wide range of temperature and moisture conditions.

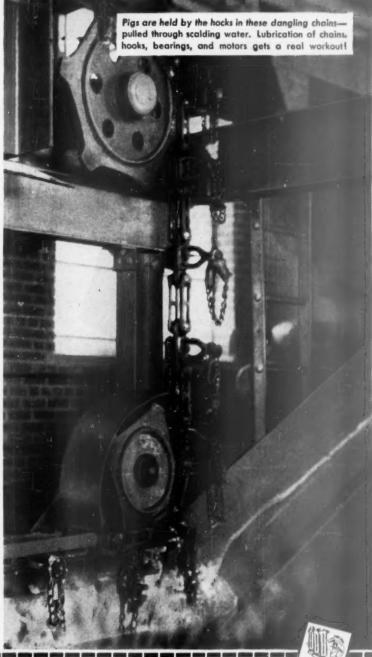
In meat packing plants, as in many others, POCO HTB Grease is widely used with outstanding success as a general purpose lubricant. High film strength and adhesiveness over a wide range of temperature and moisture conditions make this possible.

POCO HTB is one of a group of Pure Oil multi-purpose industrial lubricants that you can turn to advantage to simplify your lubrication practice—and reduce your lubricants inventory.

Find out more about this versatile compact line of oils and greases designed to do so many jobs equally well. In most plants no more than six lubricants are needed to do the entire lubrication job with complete success. By reducing the number of lubricants used in your plant to six or less, you can slash application costs, minimize waste and error.

Tear out that coupon now and mail it today. You'll get full details on how to start a new labor-saving, money-saving, lubrication program in your plant.

KEEP IT PURE, AND SIMPLE!



# PURE OIL INDUSTRIAL LUBRICANTS

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# Resins Make News

#### CHEMICAL PROBLEM ...

. . . inks that dry fast on today's high-speed presses; print clear on many different surfaces, such as magazine covers and packages.

## SOLUTION ...

. . . quality-controlled resins, developed by Hercules' rosin research, that are tailor-made for many modern printing inks. The Pentalyn® series, for example, and Limed Poly-pale® Resin, are found in rotogravure, letterpress, and lithographic inks. Other Hercules resins are used in flexographic (aniline) inks. Hercules also makes film-formers, such as nitrocellulose, ethyl cellulose, and Parlon®, for inks used on publications, bread and soap wraps, and for printing on foil, cellophane, and other hard-to-print surfaces,

#### RESULT...

... quick-drying inks that reduce printing time; inks that reproduce colors clearly; inks that take to any surface and withstand water, alkali, or fading. Today, there's an ink for every purpose, and chemical materials from Hercules to help the ink maker in his task. Detailed information is available on their role in specific inks.



## Hercules' business is solving problems by chemistry for industry . . .



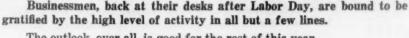
... soaps, detergents, rubber, plastics, paint, varnish, lacquer, textiles, paper, insecticides, adhesives, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

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## **BUSINESS OUTLOOK**

BUSINESS WEEK SEPT. 12, 1953



The outlook, over-all, is good for the rest of this year.

But, if you are caught in one of the crosscurrents, you won't be sharing the general good feeling. And 1954 prospects are clouded.



Today's biggest single economic weakness is this: The curve has stopped rising—and there's nothing in sight to give it new zip.

Government spending is declining. Business outlays on plant, equipment, and inventory may soon pass their peak.

Autos and home building no longer have the boundless vitality that took up the slack in 1949.

Government deficits now (despite efforts at economy) are, of course, a potential source of inflation.

But there's no inflation psychology to make this an active force.

More important, big tax collections early next year will turn this around. The federal surplus then will be deflationary-and this timing may catch business just when it needs a shot in the arm.

Practically all the soothsayers, at one time or another, have predicted that business spending must soon turn down.

You need only look at this year's capital outlays (page 30) to see how wrong they've been. This year's total now is expected to set another new high close to \$28-billion, up from last year's \$261/2-billion.

But the fourth-quarter figures again raise some fears. They're not much over a year ago—and down from this year's third quarter.

Business can change its spending ideas toward inventories much more rapidly than it can on plant expansion and modernization. And reduced spending on materials is fully as significant as on plant.

Thus inventories become the volatile—and perhaps the critical factor in total business spending.

Manufacturers have continued to build inventories even in the face of a declining backlog of unfilled orders (BW-Sep.5'53,p17). This, of course, makes the \$46-billion of factory inventories all the more dangerous.

Incentives for accumulating inventories usually are (1) an increase in the volume of business, (2) rising prices, or (3) shortages.

Today, none of these incentives is operating.

New orders are not rising; backlogs are declining. Prices are shaky; even steel may get cheaper. And shortages, like the Giants, are dead.

Cheaper steel, when it arrives, will not sell at lower base prices. The cuts will be concealed, at least at first.

The industry already is talking about the day when competition will force some freight absorption. And when one mill offers to absorb freight, another will grant concessions to the same customer.

## BUSINESS OUTLOOK (Continued)

BUSINESS WEEK SEPT. 12, 1953 Steel operations this week are estimated by the American Iron & Steel Institute at 88.7% of capacity, low-water mark for the year to date.

That rate, however, reflects some slowing down for the holiday and also a wildcat strike. And don't forget: Even at 88.7% of present capacity, the industry turns out 2-million tons of steel in a week.

It is safe to say, though, that if customers get wind of price shading, steel operations will go a good bit lower before yearend.

When demand ebbs, operations always fall faster than actual use. It's a typical "overadjustment" during the process of shaking down.

Sales of new autos (and, indirectly, of used cars) will have a good deal to do with the rate of steel operations later this year.

Auto output in July was about 600,000; preliminary figures for August indicate 520,000. September will do very well indeed (what with the General Motors fire) to bring the third quarter above 1.6-million.

That would compare with 1½-million in the first quarter this year and 1¾-million in the second. It would be perhaps 250,000 short of some industry expectations a couple of months back.

Some types of industrial goods show signs of having passed the peak of their boom, despite the over-all vigor of business capital spending.

Trucks aren't doing too well—and further government cutbacks are in the air. Railways' capital outlays are declining. And there has been a modest contraction in employment in machinery manufacturing.

Mortgage money rather than potential demand may be the trouble in home building, but the lush market is behind us in any event.

The value of work done on new dwelling units should be at its high in midsummer. This year, however, there was a small decline from June to July and another from July to August, government reports indicate.

Residential building in August, nevertheless, held close to \$1.1-billion and was nearly 4% ahead of a year ago. The year to date is up 9%.

Construction generally—industrial, commercial, and public works as well as residential—hit another new high at \$3.3-billion in August. That put the year to date above \$22.6-billion, nearly 8% over a year ago.

Oversupply is a word you are beginning to hear more frequently.

Oil refiners have come to the end of the big motoring season with a lot of gasoline in stock. Several have reduced operations, and moves are under way to lower crude oil output in both Oklahoma and Texas.

Price competition is spreading and getting fiercer in plywood, while brass mills are curtailing output slightly.

Orders for lumber are behind a year ago and mills' stocks rising.

Consumer demand—backed by income at an annual rate of \$288-billion, 8% ahead of a year ago—remains the big force sustaining business.

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"World's Largest Builder of Motor Boats"

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"In addition to saving 111 hours per month on Accounts Receivable, our Nationals' great versatility' enables us to keep current on Accounts Payable and Daily Sales Analysis and Distribution, with time left over for General Ledger and Profit-and-Loss breakdown.
"We also use National Adding Machines for all types of figure work.

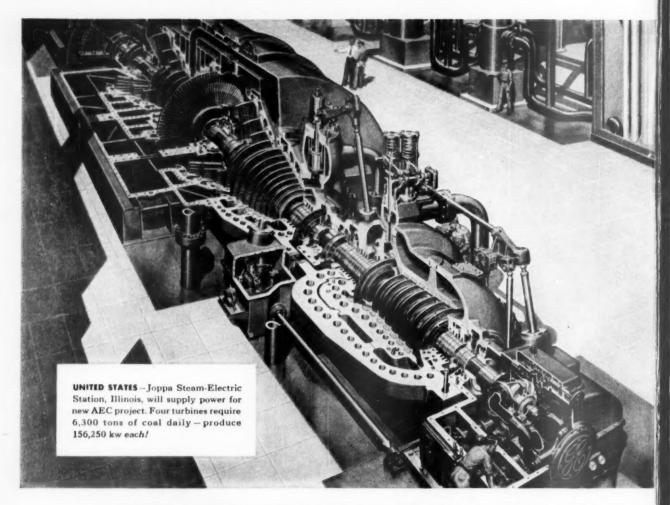
"Nationals save us their cost every 9 months. Our operators like them because they're so easy to learn and so easy to operate that jobs are done on time with less effort."

Jay W. Smith

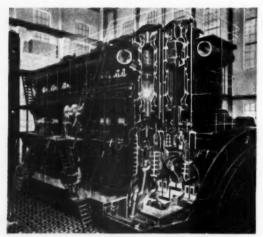
Regardless of the size of business, there is a National System that cuts costs, pays for itself, and then continues savings as handsome annual profit. National's exclusive combination of features does up to 3/3 of the work automatically. Let your nearby National representative show what you can save with National Machines suited to your needs.

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THE NATIONAL CASH REGISTER COMPANY, DAYTON 9, ONIO



# SEVEN WONDERS OF THE



DENMARK—World's biggest diesel, in Copenhagen, is 38 feet high, 80 feet long with generator and exciter. Eight giant cylinders (33" bore, 58" stroke) can deliver 22,500 hp.—produce 15,000 kw!

## Protected by the World's Greatest Lubrication Knowledge and Engineering Service

On these pages are pictured seven of the world's most spectacular electric generating plants—truly seven "wonders" of the power world!

Each is unique—a triumph of engineering science...each contains some of the costliest power machinery. That's why Socony-Vecuum was asked to set up a program of Correct Lubrication for each plant.

There are famous Gargoyle D.T.E. Oils for turbines and diesels...other special Gargoyle oils and greases for auxiliary equipment...plus skilled lubrication engineering service to go with these products.

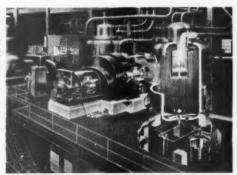
This same kind of unsurpassed lubrication protection is available for your plant, mine or mill. Why accept less?

SOCONY-VACUUM OIL COMPANY, INC., and Affiliates:
MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION



AUSTRIA - Tauern Power Plant, Kaprun, utilizes waters of melting glaciers to run its turbines - will generate 316,000 kw when finished!

UNITED STATES - World's first mercury unit - power plant teams two 7,500-kw mercury turbines with a 25,000-kw steam turbine. Steam, generated with mercury vapor, is condensed for re-use, runs steam turbine.



BRAZIL - Cubatao power plant, São Paulo, uses river waters - backed up to edge of high plateau and channeled down through mile-long penstocks -to run 8 turbines. Capacity -474,000 kw.

# POWER WORLD



SWEDEN - Harspranget Station in Arctic, country's biggest, produces 450,000 kw. Water drops 351 feet down vertical shafts to turn underground

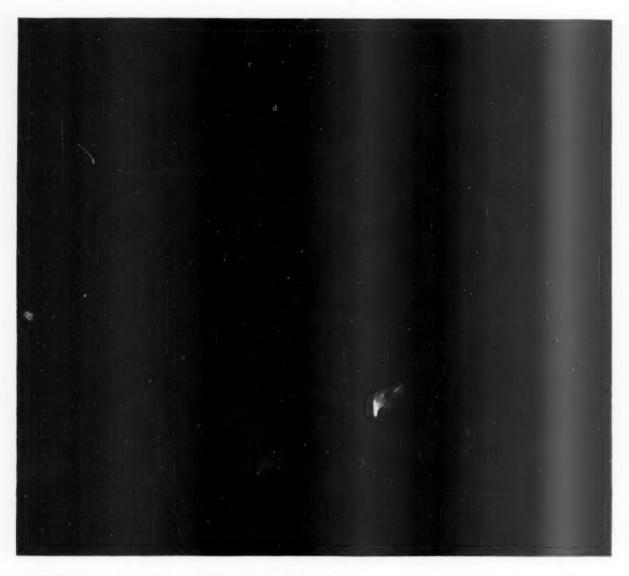
> FRANCE - Donzere-Mondragon Power Plant on the Rhone, largest hydro-plant in Western Europe. Six 70,000-hp turbines produce 2,000,000,000 kw hr. annually...an unusual achievement considering the small head, or drop, in the river.





Socony-Vacuum

Correct Lubrication



#### CARRYING COMFORT THROUGH THE NIGHT!

Of course, nobody would build a house or make a television set without proper electrical wiring and plugs. But that just underlines the importance of products made by the Hatfield Wire & Cable Division, one of seven divisions of Continental Copper & Steel Industries, Inc.

Each week, Hatfield turns out millions of feet of insulated wire and cable of all kinds. And so that your home appliances can work for you, the Hatfield Division also produces over a million cord-and-plug sets, in the same period—more than is made by any other company!

This is service that can best be measured in the comfort, convenience and safety it provides to millions of Americans. It is the kind of service that has helped our industry expand and continue to create greater facilities for happier living for more people.



ALLOY FABRICATORS DIVISION, process equipment. BRAEBURN ALLOY STEEL DIVISION, tool steels. HANOVER WIRE CLOTH DIVISION, wire screen, woven wire products. MATFIELD WIRE & CABLE DIVISION, wire, cable, cord sets. MIAGARA FALLS SMELTING & REFINING DIVISION, non-ferrous alloys. WALSH HOLYOKE BOILER WORKS DIVISION, pipelines, snow plows, heavy equipment. WELIN DAVIT & BOAT DIVISION, lifeboats, pleasure craft.

## FIGURES OF THE WEEK

1923-25=100			19	23-25=1	00-
270	1200	~			270
240					- 240
					TANK .
210	0.50				210
180	953				100
180					180
150	F M A	Mary	J A 8	ON	150
1747 1750 1751					1888
Business Week Index (above)	§ Latest Week	Preceding Week	Month Age	Year Ago	1946 Avereg
business week index (above)	*256.6	†257.4	256.6	242.2	173.
PRODUCTION					
Steel ingot production (thousands of tons)	2,000 138,211	†2,040 †152,866	2,146 137,671	2,093 111,095	1,28
Engineering const, awards (Eng. News-Rec. 4-week daily av. in thousands) Electric power output (millions of kilowatt-hours)	\$44,495	\$44,093	\$49,534	\$91,067	\$17,08 4,23
Crude oil and condensate production (daily av., thousands of bbls.)	8,694 N.A.	8,540 6,621	8,464 6,538	7,324 6,442	4,75
Bituminous coal production (daily average, thousands of tons)	1,628	1,595	1,542	372	1,74
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)  Carloadings: all other (daily av., thousands of cars)	78 59	77 59	74 58	· 57	8
Department store sales (change from same week of preceding year)	-9%	None	-1%	+4%	+309
Business failures (Dun and Bradstreet, number)	178	182	195	110	2
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	415.5 86.0	415.6	415.9 85.3	428.4 97.2	311. ††73.
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	96.3	95.2	91.4	92.8	1175
Finished steel, index (U. S. BLS, 1947-49 = 100).  Scrap steel composite (Iron Age, ton).	\$38.67	141.7 \$40.00	141.7 \$44.42	**\$42.00	\$176 \$20.2
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).  Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	29.969¢ \$2.21	29.970¢ \$2.21	29.935¢ \$2.22	24.500¢ \$2.38	14.045 \$1.9
Cotton, daily price (middling, ten designated markets, lb.)	32.89¢ N.A.	32.91¢ \$2.12	33.04¢ \$2.12	39.45¢ N.A.	30.56 \$1.5
	19./1.	\$2.12	\$4.14	L. Walke	31.7
FINANCE			****		***
90 stocks, price index (Standard & Poor's)	187.3 3.88%	187.2 3.86%	196.7 3.84%	198.7 3.51%	135. 3.059
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	21%	21%	21%	21-21%	3-19
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	53,034	53,330	53,177	52,982	1145,82
Total loans and investments, reporting member banks	79,382 22,969	79,301 22,891	79,870 22,799	76,130 21,200	††72,03 ††9,29
U. S. gov't guaranteed obligations held, reporting member banks	31,798 26,071	32,005 26,131	32,536 26,153	32,368 24,816	1149,87 23,88
MONTHLY FIGURES OF THE WEEK		Latest	Preceding	Year	1946
		Month \$288.1	Month \$286.3	\$266.3	\$177.
Farm income (seasonally adjusted, in billions)		\$17.6 \$22,054	\$17.5 \$21,572	\$20.3 \$20,127	\$18. \$9,79
Wholesalers' inventories (seasonally adjusted, in millions)		\$10,420	\$10,400	\$9,890	\$5,48

## in BUSINESS this WEEK ...

#### **GENERAL BUSINESS:**

NO TAX OVERHAUL IN SIGHT. Treasury officials feel basic revision would rule out balanced budget in 1955
WATER PAINT for autos? That's what Reichhold Chemicals thinks it has
NETS SCRAMBLE FOR MORE. TV heads for the biggest advertising year yetp. 29
THE CAT WITH NINE LIVES. The capital expansion boom is rolling faster than everp. 30
TWO DAYS THAT STARTLED GEORGIA. On- lookers gape as Lockheed hauls huge mockup of new cargo transport across statep. 31

BEEFING UP AIR DEFENSE. Some of Air Force cutback funds may go into more missiles and an "automatic" fighter
CARPENTERS REJOIN. Union reaffiliates with AFL
REBUILDING GM's MACHINES. Tool builders are up to their ears in repair work on fire-crippled machine tools
A BOTTLE THAT COULD START A BATTLE Schenley blended whiskey sold in a decanter signals stiffening competition
BUSINESS BRIEFSp. 36

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CAN RAILROADS AND TRUCKERS MAKE HAY TOGETHER? Increasing piggyback hauling of trucks on flatcars forces both to face the question....p. 110 COMEBACK FOR WISCONSIN PAPER. New products, new markets restore an industry.....p. 119

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Plant offices share in production workers' gainp. 171
NEW LINEUP IN LABOR DEPT. With key jobs finally filled, Secretary Dur- kin moves to tighten his depart- ment
ELECTRICAL UNIONS SQUARE OFF. UE and CIO's IUE will talk offense and defense at upcoming conven- tionsp. 173

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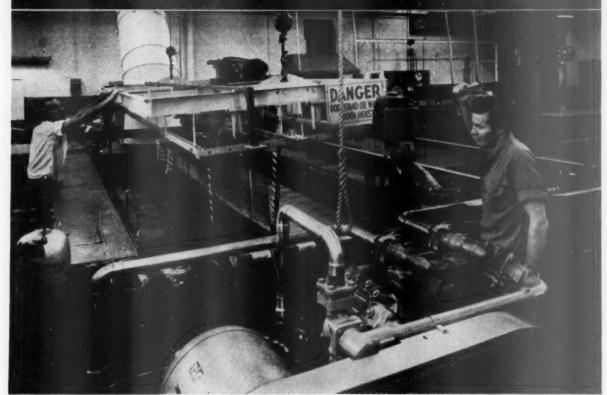
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#### WHAT IT'S ABOUT:

THE SERVICES KEEP STRINGS ON MILLIONS. End of the Korean war may not change the draft picture too much .....p. 140

## REFRIGERATION ... MODERN PRODUCTION TOOL



# How refrigeration adds stamina to the Cougar Jet

... ONE OF AMERICA'S SPEEDY FIGHTER PLANES

In the streamlined plant of the Grumman Aircraft Engineering Corporation at Bethpage, Long Island, N. Y., speedy Cougar Jets leave assembly lines at a rapid pace. And no time is lost in getting them into the air for test flights.

Throughout...the Cougar is a tough ship... worthy of its place of importance in America's front line of defense. In constructing this swift pride of our air fleet innumerable tools of production are used... including modern refrigeration.

For example-refrigeration provided by a compact machine charged with a Du Pont FREON\* fluorinated hydrocarbon refrigerant permits accurate control of temperature in aluminum anodizing baths, such as that pictured above. In the process, aluminum parts are immersed in a solution of sulfuric acid. Powerful charges of electricity are introduced. These create heat. But the bath temperature must be held between 25°F. and 50°F., since this is an important factor in determining the ultimate surface hardness of the anodized parts. Finished . . . the metal surface becomes harder than chrome plate and has tremendous abrasion resistance.

Refrigeration . . . the control of temperatures where they are essential to many production operations . . . has become one of the most important tools of industry. Not only in the construction of jet planes, but in all sorts of manufacturing procedures. Today, almost all modern refrigeration (and air conditioning) installations are served by systems (both large and small) that are operated with "Freon" refrigerants. There is good reasoning back of the selection of such equipment. "Freon" refrigerants are safe noncombustible, nonexplosive, virtually nontoxic, and their purity and uniformity are assured by exacting, laboratory-controlled methods of manufacture . . . producing characteristics in the refrigerant that contribute to the economical, trouble-free performance of equipment over long periods of time.

Perhaps both refrigeration and air conditioning can further serve in your plant or offices right now. Why not review the subject with your engineers soon? A booklet, "How Air Conditioning and Refrigeration Benefit Industry," is available on request. Write for it. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Div., Wilmington 98, Delaware.



\*"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.

"Freon" Safe Refrigerants

REG. U.S. PAT, OFF



BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY



Carl Rosen, President of Puritan Dress Company, tells how ...

## He leads the world's biggest dress parade!

"Fashions are perishable," says Carl Rosen, head of the world's largest women's dress house. "The season is short — speed is the essence.

"First we test new styles in key markets to see how they click. New dresses reach the stores on time — via Air Express.

"Then we release the best styles, timed to go on sale when our 2-page ads appear in Sunday papers all over the country. Those dresses reach every part of the nation overnight — via Air Express. Finally, our efforts pay off in a flood of reorders!

"And again we turn to Air Express, to replace stocks as fast as they sell out. This dependable speed is the lifeblood of our business. It is absolutely essential to us.

"Yet the majority of our Air Express shipments go at *lower rates* than any other commercial air service.

"Buyers and salesmen know they can depend on us. We depend on Air Express!"

It pays to express yourself clearly. Say Air Express! Division of Railway Express Agency.





## BUSINESS WEEK

NUMBER 1254 SEPT. 12, 1953





TREASURY BOSS George M. Humphrey wants more revenue. The powerful Rep. Daniel Reed wants tax cuts. The result . . .

## No Tax Overhaul in Sight

The Administration's dream of overhauling the basic tax structure next year has all but disappeared.

Instead, the prospects shape up about like this:

• The excess profits tax will die on schedule at the end of the year.

• Personal income taxes will go down 2%-10% Jan. 1, with the death of the special emergency boosts.

• Just about any other changes, including the scheduled Apr. 1 cut in the corporation tax to 47% from 52%, will have to be hammered out between Secretary of the Treasury George M. Humphrey and Congress.

The reason for the back-away from basic revision is simple: The price, in terms of revenue to the Treasury, is just too high.

It's a price Treasury officials now realize they cannot pay if they want to balance the budget in fiscal 1955, starting next July 1.

The decision means another fight with Rep. Daniel A. Reed and his tax-writing House Ways and Means Committee. It could be just as bitter as the row this year over extension of the excess profits tax.

• Conflicting Aims—Two entirely different political goals are at stake. Republican members of Congress want to be sure that when they face the voters in November next year they have a Republican tax cut to boast about.

As things stand now, they won't have it. If the laws stay just as they are now, the only reductions will be those voted by the Democrats when they were in power. These include the 2% to 10% personal income cut, the drop in the corporation tax, and a reduction in special Korean war excise taxes Apr. 1. Death of the excess profits tax Jan. 1 is taken for granted by both Treasury and the Ways and Means Committee. · More Revenue-All that members of Congress have heard officially from Humphrey is that he is looking for new sources of revenue. You'll see why he's talking that way by looking at the budget picture for fiscal 1955. Even with the economies being made, it's a gloomy one.

Start with spending. In the current fiscal year, it's estimated at \$72.1-billion. That represents a \$6.5-billion reduction from the Truman spending plan, submitted to Congress last January. Budget Director Joseph M. Dodge has ordered a second round of cuts totaling at least another \$6.5-billion.

That would drop spending to \$65.6-billion.

Trouble is, the revenue losses built into the present tax laws would at the same time be reducing revenue to something around \$60.1-billion. That would mean a bigger deficit than this year's.

This prospect has political terrors all

its own for the Eisenhower team of budget balancers. It's a specter that makes it easier for them to tov with the idea of tax rise-election year or not. • Two Terrors-This is a case of which political worry will bear the most weight with Congress. In the same argument this year, President Eisenhower and Humphrey kept most of Congress on the side of budget balancing, though they never succeeded in convincing Reed. Next year, Reed will have election-year jitters on his side. Privately, some members of the Ways and Means Committee think the Treasury will back down-accepting a net reduction in revenue up to \$1.5-billion or so, without more than token opposition.

That would give Reed room to put through some of his favorite revision ideas.

He has already spoken up for more liberal tax treatment of income earned by dependents. He wants the law changed so young people can earn more than \$600 without costing parents their income tax dependency credit. Reed also wants to wipe out penalties for failure to file declarations of estimated tax. Both these ideas involve some loss of revenue, but not much. Other possibilities for revision:

· Rep. Richard Simpson's idea of exempting the first \$200 of income from dividends from income taxes. This would cost the Treasury around \$150million.

· More liberal depreciation allowances on plant and equipment. If present regulations were eased to allow around 10% greater allowances, it would nick the Treasury for \$500-million or so over the next few years.

These are all far from certain. And they do not add up to a basic rewriting of the tax laws. Reed's committee, and Treasury experts, have been studying 40 different changes in the tax laws. Most of these will have to go on the shelf, as Treasury officials now see the

· Holding the Line-Their big job will be to hold Reed and the other Congressional tax cutters in line.

One way they hope to do it is to offer up a real overhaul of excise taxes. Eisenhower has promised this twice. The last time was when he vetoed a bill that would have ended the excise tax on theater admissions. He said he would recommend a reduction of this tax in an over-all modification of excise proposed early in 1954.

Here again, Treasury ideas and Reed's idea may clash.

· Excise-Reed has asked experts on the staff of the Joint Congressional Committee on Internal Revenue to draw up a new arrangement of excise taxes. This might eliminate the present high rates on such items as jewelry, theater admissions, and cameras, and give some relief to automobiles and household appliances.

But there's \$10-billion of revenue in excise taxes now on the books. The Administration has no intention of turning Reed loose to rewrite those laws without offering a guiding hand from the White House. One plan being considered is to keep present excises only on liquor and tobacco, replacing all others with a general sales tax either at the manufacturer's or the retail level.

A 5% or 6% sales tax at the retail level, exempting food and drugs but keeping the present alcohol and tobacco taxes, would maintain revenue from excises around the present \$10billion level according to one Treasury

According to another set of figures prepared by the Joint Committee on Internal Revenue, a 5% general tax at the manufacturer's level would provide \$5-billion. That would mean some loss of revenue, but not enough to worry the Treasury.

If the idea of a general sales tax is dropped, the Administration can still recommend a slash in some of the highest existing rates, by adding presently untaxed items.

• Trading-As long as he can trade revenue dollars even, Humphrey will work with Reed and his committee. When it comes to giving up dollars, Humphrey will probably fight.

For example, he may ask Congress to postpone the corporation tax reduction. About \$2-billion in revenue is involved if the entire drop of five percentage points is allowed to go through. · Package-Some Administration advisers are convinced that a single pack-

age-more excise taxes on consumers, along with continued high rates on corporations-would have a good chance of getting through Congress.

There's little enthusiasm for this idea in Reed's committee. The only encouragement so far is from Simpson, a highly influential member, who has suggested that the drop in corporation taxes may be held to 50%-down two percentage points, instead of five. This hasn't been discussed in committee, and won't be until Congress meets



## Way Up for Rockets

It takes a huge mass of steel and concrete to form a stand that won't buckle under the strain of test firings of large rocket engines. Above is the Air Force's answer. These test stands used at Edwards Air Force Base, Calif., are built on granite slopes with footings that pierce down 60 ft. A water deluge system floods the stand base during firings to prevent damage from the hot blast.

## Water Paint ...

. . . for autos? That's what Reichhold Chemicals says it has developed. The trade is frankly skeptical.

Reichhold Chemicals, Inc., is known to have a flair for the dramatic and a fondness for pulling surprises. Last week it put the cap on its reputation. At a hastily summoned press conference in New York, Henry H. Reichholdthe company's owner-announced that it has developed a synthetic resin metal finish that uses plain tap water as a sol-

If this new resin (called Hydrophen) is all Reichhold says it is, it'll mean tremendous savings for many industries that put clear or colored finishes on metal-among them, the automobile industry. Ordinary enamels, varnishes, and lacquers contain about 50% organic solvents-turpentine, for instance which are costly compared to water. Most of these organic solvents are also toxic and inflammable. With water as a substitute, the ever-present dangers of fire, explosion, and poisoning would be

· Holy Grail-Hydrophen was developed, Reichhold says, by Dr. Herbert Hoenel, well-known Austrian research chemist. If his new resin works satisfactorily, he'll have found what industrial chemists have been seeking for years. Their major problem: If water thins a finish when it's applied, it may also dissolve the finish later on. Driving through a heavy rainstorm, a motorist might find his shiny new car cleaned down to the bare metal.

Reichhold claims Hydrophen won't wash off once it's baked on. The company says the new resin resists not only water, but also oil, corrosion, and organic solvents.

· Skeptics-Major paint companies are frankly skeptical about Reichhold's new product. It'll take at least a year, they say, before Hydrophen can be tested thoroughly enough to prove its worth.

They're particularly interested to know whether it will keep its gloss over a long period of time-an important factor to the auto industry, and one that can easily make or break the new resin. They're also waiting to check up on its adhesive properties, especially on rough metal surfaces and on surfaces that may contain grease spots.

Though Reichhold's announcement left paint companies unconvinced, it didn't leave them cold. As a result of Hydrophen's press debut, at least three paint manufacturers are ready to come out with new products of their own-products that they have been nursing along in secret, ready for a rainy day.

TV Advertising Keeps on Booming									
	JanJuly 1951	JanJuly 1952	Jan. July 1953						
NBC	\$30,217,484	\$46,921,031	\$51,947,140						
CBS	20,503,987	37,367,339	51,617,184						
ABC	9,730,021	11,800,519	11,175,743						
Du Mont	3,705,925	5,288,845	5,899,113						
Outo Publishers Information Eureau	\$64,157,417	\$101,377,734	\$120,639,180 BUSINESS WEEK						

## Nets Scramble for More

In the 15 months since the freeze came off building new television stations, the TV industry waited and speculated: Would the big national advertisers step up their time buving as fast as telecasts reached new markets?

This fall, much of the speculating is over. The advertisers are buying TV time at a rate that should change cautious smiles at the network offices into broad grins. What's more, the fact that the advertisers are handing other media only a slight snubbing will give Madison Ave. a nice warm feeling inside.

• Evidence-The most convincing evidence that the new stations are being snapped up comes from the Columbia Broadcasting System, Inc. CBS says that last January its average half-hour TV show reached 43.3 stations. By this August the average had risen to 63.1 stations, and most of the big network shows do well over that average. Last season, the 11-hr. Sunday afternoon show, Omnibus, CBS' big try at "culture TV," was telecast over 57 stations: This fall it will be seen over nearly 80. On the same network, Private Secretary will rise from 80 to 102 stations, I Love Lucy from 86 to 99, and Red Buttons from 95 to 107.

 Addition—There's a sprinkling of negative talk when the question of

adding stations comes up; a few people in the industry say that sponsors are cool toward the new outlets, especially if they're ultra-high-frequency. The networks, however, say that UHF isn't hard to sell to a sponsor if the station is in a one- or two-station city. American Broadcasting's new Danny Thomas show, for instance, has so far been cleared by 81 stations, 27 of them

The prevailing opinion is that station clearance is no longer a problem. One advertising consultant says that of his three major clients, one is picking up new stations as fast as they come on the air, another has just added 40 stations to its big show, and the third, which sponsors only events, takes all the clearances it can get.

· Costs-Another question is how sponsors are going to meet TV's soaring costs (BW-May23'53,p43). How are they going to pay for the new stations, for the increasingly high-priced talent they feel they need?

Last year, a definite spread-the-cost pattern began to emerge. Sponsors would only buy half of the country, or part of a show, or even just a single spot ad on a show. Or they would only sponsor a show every other week. In the odd week, another sponsor would

pick up the tab, or the show would be sustained by the network. This method -alternating, as it is called-is in full swing this fall.

· Splitting It-The best example of this is in the American Tobacco Co.'s present TV schedule for Lucky Strike. This fall, it is giving up every other week of the Hit Parade. Crosley division of Avco Mfg. Corp. will sponsor the odd weeks. But Lucky Strike the odd weeks. turned right around and reinvested its savings in the Danny Thomas show, alternating the sponsorship with Speidel Corp. In addition Lucky Strike, as it did last year, will alternate sponsorship of Robert Montgomery Presents with S. C. Johnson & Son, Inc. (Johnson's Wax), and will be the sole sponsor of Ann Sothern's show-which features Jack Benny one week out of four.

This spread gives Lucky Strike the same amount of screen time as last vear-14 hr. a week: but it has more shows on more networks on more

nights.

· Longer Life-The move by American Tobacco hints that there's more to alternating than direct budget cutting. It could be that it's a protection against sliding talent. The trade remembers, only too well, what happened to "Mr. Television," Milton Berle. In his salad days on TV, Berle commanded ratings beyond compare, but the show-a-week pace caught up with him.

Other big-name comedians watched Berle slide and made their plans ac-cordingly: They made fewer appearances with the idea of prolonging their

TV lives.

The star being watched by the trade right now is Sid Caesar, whose Saturday night Show of Shows appears three weeks out of four. Last season there was talk that Caesar was running out of fresh material, and this year National Broadcasting Co. found itself with 40 min. of unsponsored time on the 14-hr. show. Finally, this week the network announced it had sold the first 30 min. on an alternate basis: one sponsor, Armour & Co.; the other, Radio Corp. of America.

· Categories-Most of TV's big advertisers still come from the groups that have supported radio for years: manufacturers of food, cigarettes, toiletries, and soaps. Food and food products makers are the biggest investors in both TV and radio, and surprisingly radio has suffered little at the hands of TV. Food companies, like drug companies, usually base their ad budgets on a fixed percentage of net sales. When sales are up, as in 1953, spending is lavish. Kraft Foods Co., for instance, has added to its \$4-million dramatic show on NBC a second 1-hr. dramatic show on ABC. Estimated value of the new show: \$4½-million.

Automobile manufacturers are now

among TV's biggest advertisers. In the first six months of this year, total TV network time billings to the auto makers reached \$9-million. Billings on the radio networks amounted to only \$3-million (Publishers Information Bu-

reau, Inc., figures).

· Shifts-By the end of 1953, some major changes will have occurred in the TV industry. It looks as though CBS will have passed NBC to become No. 1 net in billings. The cumulative figures for the first seven months still give a slight edge to NBC (table, page 29). But this hides the fact that CBS' billings for April, June, and July were bigger than NBC's.

CBS has finally caught up with NBC largely because of the lead it has established in daytime TV. The schedule is firmly anchored in the morning to the 14-hr. Arthur Godfrey show, follows with two high-rated giveaways, runs through three soap operas, and the Garry Moore show. Sponsorwise, Godfrey is booked solid-and has a waiting list-while two other CBS daytimers are almost completely sponsored.

This year, NBC is going after some of that daytime viewership, but so far time sales haven't caught up with CBS.

While NBC and CBS are fighting it out for first place, ABC is beginning to make its mark in the industry. Apparently the ABC-United Paramount merger, now six months old, is paving dividends. In fact, one trade observer feels next year's big news will be the rise of ABC. The network appears to be using the foot-in-the-door technique, the door being Tuesday night when it is running its new comedy show, Danny Thomas, and the U.S. Steel Hour and Album, which it surprised the industry by acquiring this summer. On the other nights of the week, however, ABC has a lot of open time, while CBS and NBC are almost completely sold out.

· Queries-There are still many questions to be answered about TV, and at least these five may be answered in 1954:

Will daytime TV really come into its own, spurred by NBC competition, or will it continue to be dominated by

Will the "big two" networks become the "big three" as ABC builds

its programming?

Will the Lucky Strike idea of spreading product identification throughout the week, instead of just hitting a couple of nights, continue?

Will the trend toward network ownership of shows, and away from sponsor or agency ownership, continue?

What will happen to the big ad budgets if sales show a slide? Will TV feel the pinch, or will the big advertisers stay on TV and drop other media?

## Expenditures for new plant and equipment by U. S. business

Seasonally Adjusted at Annual Rates (Billions of Dollars)

	THE LABOR OF	196	1		1953			
	Jan- Mar-	April- June	Andy- Sapela	Dec.	Jan Mar.	April- June	Auly- Sept.	Dec.
Manufacturing	11.78	12.24	11.64	12.23	12.48	12.66	12.78	12.18
Mining	.93	.90	.83	.87	.86	.84	.96	.97
Railroads	1.56	1.44	1.24	1.32	1.38	1.32	1.30	1.08
Transportation, other than rail.	1.44	1.36	1.27	1.38	1.27	1.28	1.48	1.41
Public Utilities	3.82	3.75	3.71	4.04	4.20	4.59	4.58	4.14
Commercial and other	7.19	6.89	6.80	7.12	6.98	7.37	7.32	7.31
TOTAL	26.72	26.58	25.49	26.96	27.18	28.06	28.42	27.08

## The Cat with Nine Lives

The experts are constantly expecting U.S. industrial expansion to slow down. As each new quarter shows up with figures higher that the previous year's corresponding quarter, observers are sure that this is the peak. But it never is. Like the proverbial cat, this constant step-up of expansion refuses to die.

It surprises even the businessmen who are doing the expanding. Toward the end of 1952, when the Dept. of Commerce asked businessmen how much they expected to spend in 1953, the results indicated a 2% drop from 1952's spending. As it turns out now, outlays for this year are expected to run to \$27.8-billion-5% above last year's total and a clear record.

• Still Rising-The record year began to shape up in May, when businessmen predicted they'd spend expansion money at the annual rate of \$28.6-billion in the third quarter (BW-Jun.13'53,p27). New predictions released this week by the Dept. of Commerce and the Securities & Exchange Commissionwhich conduct the quarterly surveysput the third-quarter figure at \$28.4billion (chart, above). The last-quarter figure at \$27.1-billion.

The drop from third to fourth quarter could be taken as the beginning of the slide-but the experts, who have been embarrassed many times in the past by predicting the boom's end, refuse to do so this time. They call the drop "moderate." It could be only a chance dent that will straighten out next year.

· Share Alike-Almost every industrial

group expects its spending this year to be above last year's. The biggest jump is being taken by the public utilities, which figure their 1953 expansion outlays will be 15% above those of 1952. Next come manufacturing industries, with a jump of about 6%.

Only railroads figure on a significant drop. They expect to spend roughly 7% less on expansion this year than

• Inside Story-The 6% gain for manufacturing is a story within itself. To make up that percentage, nondurable goods contribute an 8% gain, durable goods 3%. Biggest expanders among specific manufacturing fields are the chemical, electrical machinery, and beverage industries. Each of these industries figures on a gain of one-fifth or more over last year's expansion spend-

Offsetting those tremendous jumps, reports the Securities & Exchange Commission, are "appreciable declines" for textiles; nonautomotive transportation equipment; and stone, glass, and clay. That last group of three probably owes much of its slowdown to the rise of synthetic substitutes-plastics, and the

Most manufacturing groups expect a drop in expenditures from the third to the fourth quarter this year-as do all the broad categories except mining. Exceptions within the manufacturing category are electrical machinery and motor vehicle makers. They expect their outlays will go up in each succeeding quarter of the year.



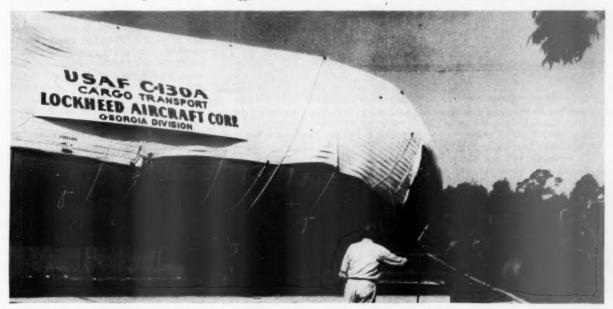
WATCHING FOR IT, school children turn out along 300 mi. of Georgia roads . . .



ASTONISHED kids wonder whether it's the biggest circus ever, and . . .



SHOCKED looks appear even on horses' faces as the monster nears—then . . .



HERE IT IS, but it's nothing to fear. It's Lockheed's mockup for the new U.S. Air Force C-130A-the biggest cargo transport

yet-the plane that, when built, will take on a loaded 5,000-gal. tractor-trailer. But its trip to Marietta for production made . . .

## Two Days That Startled Georgia



LOADING at docks wasn't too hard . . .

Moving 84,000 lb. of plastic-cocooned airplane mockup over 300 mi. of highways is something that Georgia—or any other state—never saw until Lockheed Aircraft Corp. did it last week. It took a 22-wheel tractor-trailer



... but traffic lights were a hazard ...

combination to carry the giant from Savannah docks to the Lockheed plant at Marietta, north of Atlanta.

Time for the trip: 21 hours driving time, 45 hours over-all. Casualties: one straw hat.



. . . and the giant slithered over all lanes.

The model came from Lockheed's Burbank (Calif.) plant. It's the only full-scale model of the C-130A, a new-type military transport—the first designed for turboprop engines only—that may carry cargo for 4¢ a ton-mile.

## Beefing Up Air Defense

Transfer of the money earmarked for 1,000 canceled planes may add \$1-billion to defensive budget. Missiles and an "automatic" fighter look like the choices.

The Defense Dept. is shifting more of its budget into defensive air weapons—in the face of Russia's possession of the hydrogen bomb. That's the way that Washington experts size up last week's cut of nearly 1,000 new planes from Air Force schedules. A careful look at AF procurement backs up the idea.

Cost of the planes lopped from the program is likely to run as high as \$1-billion. But Defense Secretary Charles E. Wilson is not adding that sum to his defense economics. The announcement of the cut was specific: The Air Force will retain the money to purchase other types of planes.

• Comparison—To some knowledgeable military observers this fact means that the Pentagon is ready to put more stress on purely defensive air power—as contrasted with weapons of offense and retaliation. They compare the planes climinated with other aircraft that can be bought with the money.

The Air Force chopped off: 169 Boeing B-47 jet medium bombers; 579 Republic F-84F and North American F-86F jet fighter-bombers; 201 training planes; and 10 helicopters.

At first glance, the planes climinated make the action look like a resounding whack at the Air Force's "offense is the best defense" philosophy. For the largest number of planes dropped—the B-47s and F-84s and F-86s—are offensive weapons. But the issue isn't so cleancut as that. The Defense Dept. says the reduction was the Air Force's own idea; and the B-47s were to have been used to train crews, not as operational planes of the Strategic Air Command. Moreover, the ending of the war in Korea has taken the pressure off the need for more fighter-bombers.

• Defensive—Still, a good guess is that a large part of the billion dollars will go for new types of planes and missiles that are strictly air defense weapons. These are the Hughes F-98, Boeing F-99 and Convair F-102. Understandably, there has been very little publicity released on any of these.

The F-98, named the "Falcon," has been mentioned in the press, and sketches of it being fired from aircraft have appeared in advertisements. It is obviously a missile, and the fact that the Air Force designates it as "F" for fighter would indicate that it is more than the ordinary rocket fired from aircraft. The fact that Hughes has opened

a large factory for production at Tucson, Ariz., is a pretty strong hint that the F-98 is well along.

• Security Slip—The F-99, named the "Bomare," inadvertently came to light last spring when one of the Air Force's own commands slipped and ran a sketch of it in a house organ. It, too, is a type of missile and from the sketch appeared to be at least as large as a conventional fighter plane. As there has never been any Air Force plan to use missiles against enemy fighter aircraft, the designation F-99 almost certainly means the Bomare is a pilotless interceptor for air defense purposes.

The F-102 has been more freely referred to than the other, types. It is a piloted fighter with a triangular (Delta) wing, powered by a jet engine. It often has been called an automatic airplane, meaning the pilot would take it off and land it, but that the plane's course in the air would be controlled by radar "locked-on" to an enemy bomber. As the F-102 project has been underway for several years, the first model should soon be flying.

If the Air Force should take part of its salvaged billion dollars and put it into volume production of the F-102, the move would not be unprecedented. The Boeing B-52 eight-jet heavy bomber

was ordered into production before the experimental models had been thoroughly tested.

• Same Thinking—Emphasis on these three types of defensive weapons would be a big break with past Air Force history—though not necessarily a change in Air Force thinking. Until about two years ago, the overwhelming part of AF money went into building and maintaining the Strategic Air Command on the theory it would be a deterrent to Russian aggression.

Russia's possession of the H-bomb and admitted capability to deliver it has not changed Air Force emphasis on its own ability to deliver atomic weapons. But a smaller AF budget means fewer people in the current fiscal year. Fewer people support fewer planes. So the Air Force has "found" nearly \$1-billion that can be directed toward air defense weapons without interfering greatly with the maintenance of the Strategic Air Command at its present strength.

It is highly probable that part of the \$1-billion will be used for further procurement of the North American F-100 "Super Sabre" jet fighter. Strictly speaking, this is not an air defense plane, but is to supersede the "day fighters" such as the F-86s used in Korea. The F-100 has been officially acknowledged to be supersonic in level flight, making it perhaps the world's fastest production fighter plane.

And with its great speed, the F-100 could be used to intercept bombers as well as fighters; after all, one of the best air defense planes now flying, the F-86D, grew from the day fighter version of the F-86.



## Putting the Rio Grande to Work

The 5-mi.-long Falcon Dam, started two years ago, is now holding its first armful of

the Rio Grande (behind dam). It's a joint project of Mexico and the U.S.

## Carpenters Rejoin

Union reaffiliates with AFL after a separation that no one thinks was meant to be permanent.

William Hutcheson and his carpenters came back into the AFL this week. The return, less than a month after the surprise walkout, confirmed the belief that the whole maneuver had been made with no thought of a final severance.

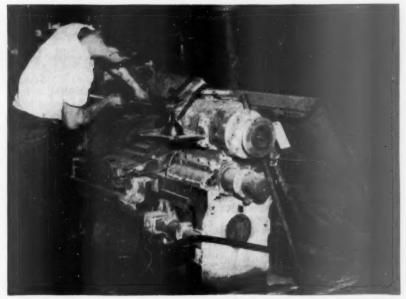
It all started when Hutcheson, president emeritus of the Brotherhood of Carpenters & Joiners, stalked out of an AFL executive council meeting (BW—Aug.22'53,p108). Even then, the only question was when, not whether, the 800,000-member union would come back into the fold. Reaffiliation talks were started quickly (BW—Sep.5'53, p153), and moved smoothly.

• Earlier Moves—Actually, the withdrawal was as unexpected within the union's own ranks as it was in AFL. Hutcheson, first vice-president of the federation, very likely did not expect that withdrawal would follow his threat to pull out the carpenters (nearly one-tenth of AFL's membership). He had threatened to quit AFL before, during recurrent disputes over job jurisdictions. Previously, he had been cajoled into staying. This year, with George Meany as president instead of the late William Green, the carpenters' letter of withdrawal was accepted.

Hutcheson thus lost his seat on the executive council, and with it the AFL's senior vice-presidency. What's more important, lower-level officials of the carpenters' union stood to lose coveted offices in AFL Central Labor Union and Building Trades Council bodies throughout the country. They disliked the withdrawal.

Subsequently the union's executive board accepted Hutcheson's reason for withdrawal—that AFL should act on internal raiding problems before concentrating on a no-raiding pact with CIO. But the board made clear that the carpenters should explore with AFL every avenue that might lead to a speedy return.

• Get Together—AFL's executive council had already been considering setting up machinery to resolve jurisdictional disputes within its ranks. Once Hutcheson's initial pique over precedence given the AFL-CIO no-raiding pact cbbed, both sides took a look at the planned recommendation. The walkout ended, then, in a joint agreement that "AFL should adopt some policy definitely designed to prevent raids within our own organization."



CRIPPLED LATHE from GM's fire needs heavy repair, fast. Tool men are sweating . . .

## Rebuilding GM's Machines

The biggest loss in General Motors Corp.'s disastrous fire at Livonia, Mich. (BW-Aug.22'53,p28), wasn't the plant building. It was the hundreds of costly machine tools that were left crippled. Engineers realized at once that the job of rebuilding and reconditioning them was the real barrier to getting back with production. And so GM immediately started rushing its battered tools back to the makers for repair. Machine tool builders suddenly found themselves up to their ears in GM work. They still are.

Their job of getting GM's tools back into working condition has involved a lot more than quickly straightening dents and wiping off soot. In many cases, machines have had to be rebuilt completely

Take the automatic lathe shown above, for instance. It arrived at the repair shops of Jones & Lamson Machine Co. (Springfield, Vt.) in unworkable condition. Bent, twisted, stained, its wiring and bearings burned out, some of its moving parts locked together, it had to be dismantled completely and rebuilt from the ground up. • Extra Load-That kind of job takes a lot of time and a lot of skilled workers. For the average machine tool shop, with a regular production schedule to maintain, GM's rush repair orders have thrown a big strain on capacity. Many grouse that GM is demanding too much service too fast.

Others foresaw the extra work load coming as soon as the extent of damage at Livonia was announced, and were able to set up extra facilities to carry them through the emergency. Jones & Lamson, for instance, went to work fast. Two days after the fire, it leased a vacant building in Springfield belonging to John T. Slack Corp., woolen goods manufacturer. It then converted the building for repair work on GM's tools.

• Confusion—All machine tool outfits baven't been lucky enough to line up

baven't been lucky enough to line up cxtra capacity for the emergency. Some of these have sidetracked regular production schedules to make way for GM's renovation jobs. Others are frantically trying to fit the extra load in somewhere.

Complaints arise largely from the tremendous confusion that followed the fire. Getting the machines out of the wreckage and shipping them out for repair was a tremendous operation, fraught with panic, carried off with lightning speed. GM itself, Detroit observers say, handled its own part of the affair with "almost magical" efficiency. But there were bound to be foul-ups somewhere along the line. There were sudden orders, equally sudden cancellations. In isolated cases, a shop would receive a carload of damaged equipment without any advance notification. Telephone lines to and from Detroit hummed with frantic voices.

The first week or so, many a machine tool builder got nettled at GM for its management of the situation and for the pressure it put on. Things are calming down now, however. In place of the confusion, there remains only work,

## A Bottle That Could Start a Battle

The Battle of the Bottles has really begun popping. It livened up last week when Schenley Industries, Inc., began selling its Schenley Reserve blended whiskey in a decanter-type bottle (picture, right) that was not only highly ornate but also came with sound effects. Tip it upside down, let the whiskey run into the hollow glass top, and you get a

loud gurgling sound.

It's more than a plaything. Schenley's bottle, and the stepped-up sales campaign that will go with it, may touch off a hotly competitive battle for position among the so-called Class A blends-those selling for about \$4.50. It may bring about some changes in the whiskey industry as a whole, too. Consumption of whiskey has been falling off sharply, and much of the pain has been felt by blends-which have been giving ground to straight whiskeys

· In and Out-Schenley's specific hope is to push Schenley Reserve back into the No. 1 spot as the nation's top-selling whiskey, a position from which it was ousted a few years ago by Distillers

Corp.-Scagrams, Ltd.

"It's the Ford story all over," says E. Farr, executive vice-president of Schenley Distributors, Inc., with an eye on Ford's big effort to take back first place in the car industry from Chevrolet.

This might seem a ponderous way to describe Schenley's bottle trick. But there is actually a lot more to the story than just putting an older whiskey blend into a pretty new bottle. Here's the basic situation confronting Schen-

Schenley's troubles started shortly after World War II. During the war the company pushed Schenley Reserve into the nation's top slot among all whiskeys. In 1947 it was selling the blend at a clip of about 8-million cases Then Seagrams' subsidiary, a vear. Joseph E. Seagram & Sons, Inc., began overtaking it. One reason: Seagrams capitalized on the continued high demand for blends in the postwar period. It stressed blends, while Schenley began putting more of its chips on straights.

Last year, according to Business WEEK's estimate (BW-Feb.7'53,p79), here was the scoreboard of the top

brands by cases sold:

Scagrams' Seven Crown Seagrams 8,000,000 Calvert Reserve Scagrams 3,325,000 Schenley Reserve 2,650,000 Schenley

About a year ago Schenley switched ad agencies. But even the new campaign of Batten, Barton, Durstine & Osborn, Inc., featuring quality and age, has failed to stop the slide. Observers figure another 7% dip for Schenley Reserve during the first half of this

· Last Chance-What to do? Schenley faced the problems besetting any distiller when he decides to push a blend.

First of all, one blend tastes much like another. In the words of Schenley's J. E. Farr: "A customer may have a preference for Schenley Reserve, but if it isn't available he'll buy something

Second, it's a tough job to merchandise liquor in the face of all the many state and local restrictions. You can't, for instance, claim your liquor doesn't leave a hangover. Just about all you can do is show a picture of your bottle in advertising. You can't even bottle in advertising.

use radio or television.

The decanter, figured Schenley, was about the one attention-getter left. It had already proved itself in the postwar market in getting sales for higher-priced whiskies. But no one had applied the idea to lower-priced whiskies for the good reason that, as Farr points out, it's 'tremendously expensive." Outsiders figure that the decanter bottle is adding at least a couple of dollars a case to the cost of Schenley Reserve-a cost that Schonley has to absorb itself since it is not raising the price.

· Advantage-Schenley is figuring on this very expense to keep some of the competition out of the Battle of the Bottles. You can amortize the cost if you have a high markup, as with a luxury bonded bourbon. But you can't do it with a lower-price whiskey selling in the A blend range unless you have big volume in the first place, add new

volume on top of that.

Farr and the Schenley people figure that at least for this season Seagrams won't be able to counterattack with its ewn ornate bottle. And that's just what Schenley wants-one selling season with the bottle to itself. (About 40% of whiskey is sold in the four months from September through December.)

• Top Secret-This explains the profound secreev that surrounded the introduction of the bottle. Farr calls it the "best-kept secret the trade has ever known." Schenley even hired a suite of rooms at the Roosevelt Hotel for BBD&O's people to work in, so that the project wouldn't leak to the rest of the agency.

There weren't any leaks, even when Schenley began bringing in its distributors in groups to show them the new bottle last month. The reception was so enthusiastic that Schenley has been revising its schedules and budgets upward ever since. As of last week it was planning to spend \$5-million all told on the bottle in this selling season-in-



SCHENLEY'S DECANTER is the first to go on the market containing a blend. More expensive straight whiskeys (background) originated the idea.

cluding the extra cost of the bottles themselves, promotion, special advertising-above and beyond what it would normally have spent to push Schenley Reserve. (Trade guesses put advertising and promotion costs of the brand at \$3.5-million altogether last year.)

· Storm Clouds-But Schenley is sure it's worth it. It reports that sales are already five times those of last year in the New York area, that it has already sold more Schenley Reserve since the beginning of this year's selling season than it did throughout last year's.

The trade looks for a knock-down, drag-out promotional battle to ensue in the liquor industry. Seagrams, it figures, will come on strong with advertising even if it can't get a fancy bottle going this year. And it's doubtful that other distillers will just sit by and watch.



FORM NO. 214

# JOSEPH T. RYERSON & SON, INC.

CHICAGO 80, ILL.

TELEPHONE: ROCKWELL 2-2121

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ME PERFORMANCE OF THE SERVICES COVERED BY THIS INVOICE WERE PRODUCED IN COMPLIANCE WITH THE PERSONAL FAIR LARGE STANDARDS ACT OF 1938 AT ASSESSED. GUST. ORDER NO. AND DATE 45301 DATE SHIPPED AND ROUTING 4/17/53 CH 782000 LATER 4/15 0 T TAX STATUS THE CENTIFY THAT THE PRICES ON THIS INVOICE DO NOT EXCÉED THOSE LAWFULLY ESTABLISHED AS APPLICABLE BY THE OFFICE OF PRICE F.O.B. TERMS: NET 30 DAYS % 10 DAYS FROM 6 BAR H R MILD 3/8 X 1 5/8 X 16.0"

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these days

these days ORIGINAL INVOICE

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## six bars . . . or six truckloads!

The size of your steel order does not measure the speed of your shipment from Ryerson. You can depend on quick delivery whether you need six bars or six truckloads.

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Another advantage: large, diversified Ryerson stocks save purchasing time. Just one call, one order, one invoice to take care of all your steel requirements. So the next time you need steel, call your nearby Ryerson plant for fast, dependable service.

PRINCIPAL PRODUCTS: CARBON, ALLOY & STAINLESS STEELS—BARS, STRUCTURALS, PLATES, SHEETS, TUBING, ETC.

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Recently one of our sales engineers found a die casting for a food mixer which was being turned out on five machines operating on two shifts. He recommended a New Britain precision contour boring and turning machine for the production of this piece. Now this one automatic machine, fed by one semi-skilled woman operator, performs on a single shift all the operations previously handled by 10 men on 5 machines. All tolerances are more closely held because all the operations are performed in one chucking of the piece. The finish which was formerly unsatisfactory is now uniform, ending an assembly headache. The customer says this is the most profitable machine tool investment he ever made.

We have prepared a booklet describing two dozen other equally impressive examples of the fine precision boring and turning this machine can do. Please write us for 24 COST-SAVING JOBS, which we will mail you promptly.

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NEW BRITAIN

Automatics

THE NEW BRITAIN MACHINE COMPANY
New Britain-Gridley Machine Division
NEW BRITAIN, CONNECTICUT

#### **BUSINESS BRIEFS**

Commercial color TV is moving ahead rapidly. The industry finally became united when CBS announced that it had joined several other companies in petitioning the Federal Communications Commission to adopt a new color system (BW-Jul.4'53,p46) to replace the CBS system O.K.'d in 1950.

This year's cotton crop looked on Aug. 1 to be the third-largest on record, nosing out last year's—15,159,000 bales to 15,136,000. But the record, if achieved, won't be altogether a happy one. By adding to the cotton surplus, it will require farmers to vote on whether they, like wheat raisers, will accept marketing quotas or give up government price supports next year.

First-class mail by air came a step nearer to actuality when the Post Office Dept. petitioned the Civil Aeronautics Board to fly regular 3¢ mail between New York and Chicago, and Washington and Chicago. The plan calls for a year's experiment, may be followed by adoption for all transcontinental mail (BW-Aug.8'53,p30).

Tidelands oil battle went into a new phase when the Justice Dept. asked the U.S. district court in Washington to dismiss Arkansas' suit to upset the law by which Congress turned the tidelands over to the states (BW-Jul.25'53,p37). Arkansas claims that the tidelands should be held by the federal government in trust for all the states, not just those that abut.

Standard Oil Co. (Indiana) will build a 30,00-bbl.-a-day fluid catalytic hydroforming unit at its Whiting (Ind.) refinery. The unit, first of its kind in the world, will change low-octane naphtha to high-octane hydroformate for blending with other gasoline stocks.

BBC will be broke by March, 1955, it says, unless the British government reduces its take from the state-sponsored broadcasting system. BBC, which shuns commercials, went into the red over \$2-million last year, blames it on the government's boost (from 5% to 15%) of its cut on the \$2.80 annual set fees that support the system.

Nonferrous price drops put the screws on the industry. Howe Sound Co. blames lower metal prices for cutting its dividend from 35¢ to 10¢, in the last two quarters. . . . In the Cocur d'Alene (Idaho) area, some operators say they may shut down lead and zinc mines, due to price drops plus higher labor costs.



# NEW "V.P." MAKES GOOD!

Edison's new fashioned individual dictating instrument scores instantly on looks, size, ease of use and carrying



Slim but sturdy, tiny but tough, the V. P. is EDISON-designed for daily desk use. Ingenious features: automatic disc positioning, push-button indexing, scanning, playback and—dual use for transcribing as well as dictating!



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Famed industrial designer, Carl Otto, has won the National Industrial Designers' Institute Medal for his design of the V.P. Experts say the V.P.—today's most wanted dictating instrument—is first by far!



This is the prized Audio Engineering Award, won by the V.P. for "Excellence in Design and Manufacture of Dictating Instruments." The V.P.'s patented features include unequalled High Definition Recording.

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The V.P. uses the superb EDISON Diamond Disc, which integrates perfectly with EDISON TELEVOICE, the new-fashioned phone dictation system. Don't wait—PLAN YOUR NEEDS NOW for the popular V.P.





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about today's most advanced dictating instrument in free, full-color brochure. Just clip coupon to your letterhead and sign. Or phone local EDISON VOICEWRITER office. EDISON, 88 Lakeside Avenue, West Orange, N. J. OK., send me "V.P." brochure—no obligation.

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CITY	ZONE STATE



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If you will put a Jenkins Valve, recommended for your particular service, on the worst place you can find — where you cannot keep other valves tight — and if it is not perfectly tight or it does not hold steam, oil, acids, water or other fluids longer than any other valve, you may return it and your money will be refunded.

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A FAIR OFFER THAT HAS BEEN IN EFFECT

JENKINS VALVES This famous "Fair Offer" has been published at frequent intervals for the past 84 years. It can be repeated, again and again, only because all Jenkins Valves measure up to its sincere pledge of exceptional dependability.

Despite their extra value, proved by countless economy records in every type of service, you pay no more for Jenkins Valves. Jenkins Bros., 100 Park Ave., New York 17:

## WASHINGTON OUTLOOK

WASHINGTON BUREAU SEPT. 12, 1953



The big political fight against Eisenhower is beginning. Since the landslide last fall the Democrats have been pretty quiet. In fact, the party leaders have boasted about cooperation with Eisenhower. But the Democrats can't get anywhere by lining up behind a G.O.P. President. So comeback strategy is in the making.

Business will be made a whipping boy again. All signs point that way. Truman and the big union leaders tipped the Democratic hand on Labor Day (watch the Stevenson rally in Chicago for further refinements). This is the bill of particulars the Democrats are framing up:

Eisenhower's budget-balancing policy is wrong. The opposition claims it risks war abroad, recession here at home.

- Defense is being cut, especially the Air Force, merely to save money.
- · Civilian defense is being badly neglected—and for the same reason.
- Interest rates have been pushed up to the benefit of the lenders—and at the expense of borrowers, veterans, home buyers, small businessmen, farmers.
- Public housing has been "condemned to death." And this, the critics claim, will perpetuate the big city slums.

Here are a few more charges:

- Farmers will have to go it alone. The Democrats claim this assures a farm depression.
- The "giveaway" of tidelands oils to the states is being compared with Teapot Dome—the big scandal of the G.O.P. in the '20s.
- Then there's the public power issue. Eisenhower has departed from the Democratic policy of public power everywhere, to public power only in those places where private capital isn't available.
- Unkept campaign promises top it all. Here revision of Taft-Hartley, the controversial labor law, is being played up by the Democrats.

The tone of the Democratic attack is anti-business. On most issues the complaint is that the Eisenhower Administration favors private enterprise over either government control, as in the case of electric power projects, or government support, as in the case of farming.

Businessmen face a tough planning problem. The Democrats make it clear that if and when they return to power they will change things around again. On a smaller scale, the problem is comparable to that which businessmen face in England; the Conservative government wants to denationalize. But the outs, the Labor Party, threaten to nationalize again when they get the chance. And in democracies, political control does have a way of shifting.

Eisenhower is strengthening his Congressional contacts. The reason is simple: What the new session does will be the record on which the G.O.P. will fight next year to hold control of the House and Senate.

Gerald D. Morgan gets a promotion. He was a sub-assistant to Eisenhower on the staff of Gen. Persons, the legislative liaison chief. Persons now moves onto Sherman Adams' staff, and becomes an administrative assistant to the President. He's an expert on Congress, specializing in labor laws and taxes.

## WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU SEPT. 12, 1953 And Jack Martin is being brought in. He was Taft's right hand. In Congress his past association is well known. Now he becomes an administrative assistant to the President, working with Congress.

The list of "must" bills for the next Congress will be long, running through foreign policy, social security expansion, foreign trade (tariff) policy, to farm price supports. Some party members would like to see an early start, with a special session this fall to get things moving fast (Taft-Hartley revision, for example, will be a time-taking issue). Eisenhower hasn't made up his mind on whether to call Congress back in, say, November, or let things ride until the regular session in January.

Taxes will be a hot issue. The Administration and some tax leaders in Congress are far apart—just as they were on excess-profits tax repeal.

Eisenhower still puts budget balancing ahead of big tax cuts. He will go along with the individual income tax cut Jan. 1 (about 10%). The same goes for expiration of the excess-profits tax. But he will balk at other cuts scheduled for next year by the Truman Administration.

Prospects for tax revisions are pretty dim, for the simple reason that any important changes downward would cost a lot of revenue. Eisenhower can't spare the money and achieve his goal of a balanced budget. In fact, a big deficit in fiscal 1955 seems a certainty, despite the substantial economies the Administration is forcing. Tax relief, beyond expiration of EPT and the Korean boost on individuals, would add to the deficit.

There's more optimism on the foreign outlook. The West won an outstanding victory over the Reds in West Germany when Adenauer's policies were backed at the polls (page 160). Dulles' blunt warning to Red China on intervention in Indo-China may keep that war from growing though Korea is far from settled. The idea that force will meet force does seem to impress Russia.

A drop in housing starts next year now is taken for granted by the Eisenhower Administration. But expectations add up to no bust.

Starts will run about 900,000 units as the experts figure things. That compares with 1-million this year, 1.1-million in 1952.

Lower down-payment requirements still are in the future. Speculation has had it that relief would come this fall. But officials say "later."

A return to freight absorption won't be opposed by Washington. Moves in this direction already are showing up in steel. They are showing up, too, in other industries that must sell outside their production areas in order to keep up high-level operations. Word from trust-busting circles in government is that this is O.K.—as long as it is competitive and not designed to split up markets and limit competition.

The Supreme Court in the past 20 years has made a wide swing from a narrow interpretation of the Constitution, which limited the central government, to a much more radical interpretation, with expanded power for Washington. Eisenhower's first appointment to the court, a successor for Chief Justice Vinson, may signal a slow reversal of the trend. The President will pick a political moderate.



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Kaiser steel corporation, with its new tin plate mill, was concerned with the anticipated scrapping of many thousands of sheets of tin plate annually.

This costly loss was expected to result from the destructive chemical methods customarily used in determining tin plate thickness during production.

Engineers of the Kaiser Steel Corporation working with the staff of North American Philips, maker of Norello products, set about to find a solution to this problem. They recognized the extreme flexibility of Norello X-ray Diffraction equipment and saw, too, the possibility of its use in non-destructive production control.

#### The X-ray Tin-Coating Gauge

Using Norello X-ray Diffraction as a basis, technicians of these two companies developed the Norello X-ray Tin-Coating Gauge. This instrument emits an X-ray beam whose intensity loss, passing back through the tin coating, is measured by a Geiger counter. The entire procedure takes but seconds and the sample remains unaffected.

Here is another typical example of the versatile way in which NORELCO X-ray Diffraction and Spectrographic equipment serves manufacturers—large and small—in a host of widely varied fields.

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The same imaginative research, creative engineering and precision in manufacture that made the X-ray Tin-Coating Gauge possible is manifested in every product that bears the NORELCO name.

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## PRODUCTION

#### How the Heavy Construction Industry Has Grown Since 1949

Of the contractors surveyed . . .

87% have higher dollar volume capacity

90% can handle more jobs

92% can handle larger jobs

67% can complete jobs faster

Data: Engineering News Record

Factors that help boost capacity...

80% have more equipment

63% have more qualified supervisory personnel

63% have more working capital

37% have more field units

21% have a stabilized labor following

Factors that limit capacity . . .

19% have a shortage of labor

19% have to wait for material deliveries

16% have a shortage of engineers

8% have a shortage of qualified supervisors

4% have a shortage of working capital

Personales weeks

## Outlook: High Volume, Tougher Bidding

Competition is sharpening in the construction industry, particularly among contractors who do big jobs like bridges, dams, airports, waterworks, and sewerage systems. Contractors are bidding for these jobs with an aggressiveness that hasn't been seen in more than a decade.

To find out what is happening and what it means, Engineering News-Record, a McGraw-Hill publication, has recently completed an extensive survey comparing operations today with 1949 (see table above). The survey provides statistical backing for a lot of the "educated guesses" economists have been making.

It confirms also the trends apparent in the weekly figures published by ENR on contracts let for heavy construction and the backlog of proposed heavy construction jobs.

• Peak—From all these figures, this picture emerges: Right now, dollar volume of construction is at an all-time high. But the number of contractors bidding for jobs is also at a peak.

There's been a dollar increase of 38% in construction volume since 1949, but a good part of this is due to rising costs. In terms of physical volume (actual steel, concrete, lumber put in place) today's level is probably not more than 10% above 1949.

Contractors now expect construction

to remain at a high level for at least the next 15 months. The ENR figures show that a peak came in the first few months of this year, when the value of contracts being let was running 40% above last year. Now the new contracts are dropping off: Last month they were about 7% below last year and will likely continue to taper off.

But there's a tremendous backlog of work already in the blueprint stage to keep things humming at least until the end of 1954. Conservative ENR figures the backlog at \$72.4-billion. In the past only about half of the work contracted had been listed previously in the ENR backlog.

• Types of Work—Take for example highways—one of the things to watch in the next few years. On the ENR backlog they total only \$8.2-billion, but state and municipal agencies put the need for new roads at about \$42-billion. Everyone agrees the highway program hasn't kept pace with traffic increases. Materials shortages are no longer a big problem—but some financial experts are more pessimistic than are the contractors about where the money for the needed roads will come from (BW—Oct.25'52,p130).

Construction experts report that they expect some shifts, such as more emphasis on roads. But they see no great drop in any section of the country,

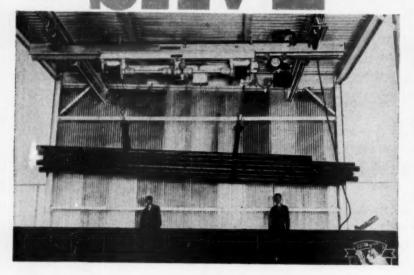
though they say there's already a spottiness in the boom, with one area overflowing with work, for example, and another nearby almost closed down.

By and large, ENR figures show commercial building holding up well, industrial building doing a lot better than experts figured, state and municipal construction thriving. It's the big federal work that's drying up because of budget cutting in Washington. But many contractors say they look for the curtailed projects to be the first ones reinstated at the least sign of a general business recession.

• Capacity—All these factors, in the opinion of construction experts, point to a continuing high construction level. But earlier ENR surveys disclose a record number of contractors in the field: The number doing more than \$100,000 annual business is up 39% since 1949. And the survey just completed by ENR shows that contractors right across the board—big or little—now have the capacity to handle more and bigger jobs.

This survey indicates that contractors have capacity to handle 50% more work than they are now doing—that's a median figure. Compared with 1949, 18% reported little or no increase in capacity and 18% reported 100% or

Capacity is difficult to define in



Every time a 60,000 pound car of pipe is unloaded, a southern industrial supply jobber realizes a saving of \$30. Two men load pipe of various sizes in slings. Crane operator raises load to upper limit and dispatches crane to one of 13 stations in warehouse. It is estimated that this system will pay for itself in less than one year.

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#### "... contractors see a heavy casualty list . . ."

CONTRACTORS starts on p. 43

construction. ENR boils it down to amount and quality of mechanized equipment, availability of working capital, experience of supervisory personnel.

As the table shows, equipment plays the most vital role, with the two other factors given about equal weight by the contractors surveyed.

Among limiting factors, 19% listed shortage of labor, with smaller size contractors harder hit than big ones, and the shortage most critical in the Midwest. That's where the big atomic energy projects and related power projects are making a heavy drain on labor. In some regions high industrial wages make recruiting of construction labor difficult. Shortage of engineers seems to be greatest on highway projects.

• Tougher—The expanded capacity is

the big factor in the sharper competition for heavy construction jobs. The survey shows that work is attracting an average of 25%.

More contractors are also spreading out and bidding farther from home. This may be due, however, as much to growth in the size of individual companies as to "hungry bidding."

· Cost Factors-Bidding on a big job is always a gamble. Costs may always go up unpredictably. Contractors list four principal factors to be considered: labor, materials, efficiency, and profit. And they say they don't see much hope for a reduction in costs, because:

· Labor rates may go up and raise

costs even higher.

· If we get into a surplus market, materials may go down a little, but no one seems to count much on it.

· Greater efficiency seems to be one possibility for reducing costs, but as the survey shows, heavy work is already highly mechanized. Some 69% of the contractors surveyed reported that they are now completing work fastera median increase in speed of 25% since 1949.

· Profit is the only other area for cuts. But big contractors work traditionally with a low profit margin-perhaps 5%. When something doesn't go according to schedule, costs can rapidly

cat up the difference.

· Hard Going-The majority of the contractors queried see the intense competition lasting for a year or two, with a heavy casualty list. Experience and a good financial position will be key factors in the months ahead. One contractor summed it up like this: "The honeymoon is over and only properly managed, equipped, and financed firms will meet the situation.

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## Tape Unreels Magnetic Future

Magnetic recording, already a multimillion-dollar business, sees the home market opening up soon, new uses coming in television, scientific measurement, industry.

If you've dialed for the weather on your telephone, watched a 3-D movie, or listened to a delayed radio broadcast from Korea, you've encountered magnetic recording. And maybe you've thought this type of recording was just a gimmick for a selected few.

If that ever was true, this summer has changed the picture. Right now, magnetic recording is the hottest thing in Tin Pan Alley-it's threatening to push its way into TV and is already an indispensable tool in radio and motion pictures-and it's finding a host of scientific and industrial uses. The trade looks for the home market to be the next to break wide open. Within the magnetic recording field, tape is forging ahead of other methods.

• Omens-Here are some straws in the summer wind:

• RCA Victor Division of Radio Corp. of America-giant of the commercial recording business-announced it was introducing a streamlined portable tape recorder model for the consumer field this fall.

• Muzak Corp., which pipes in background music by wire to restaurants, factories, stations, is expanding its

field through use of tape.

• Bing Crosby Enterprises announced this week it has solved 80% of the problems in black and white tape-recorded television (BW-Dec.1 '51,p112) and is working on color.

· Making multiple copies of tape recordings reached a practicable stagethus bringing closer the day when the public can buy pre-recorded tapes on a large scale, as it now buys disk records.

In the recording business, many feel it's only a matter of time until the whole industry will have shifted from disks to magnetic for original recording. Pressing disks for the mass market looks as if it would remain for a long while-but some enthusiasts predict that tape recorders will be as common in the homes of the '60s as radios and phonographs are today.

· Storehouse-But magnetic recording has wider uses, too. It's basically a means of storing information; almost anything that can be written or spoken or-to a lesser extent-seen can be recorded magnetically. The method has advantages in many applications over older means of storing information such as writing, printing, mechanical recording, filming, microfilming.

The advantages vary from machine to machine, but the three big selling points have been: (1) fidelity of recording, (2) low cost, and (3) simplicity of operation.

#### I. Success Story

Like most technological developments, magnetic recording has a long history. The first patents for recording sound on wire were granted almost 100 years ago-nearly a quarter century before phonographic recording arrived on the scene-but nothing much came of the fascinating idea until the turn of the century.

That was when a Danish engineer named Vladimir Poulsen introduced his Telegraphone. The recorder won the Grand Prix at the Paris Exposition of 1900, looked practical enough to du Pont for the company to buy 20 of them as dictating machines for the

Wilmington office.

The playback on these early models was feeble. It wasn't until the perfection of the vacuum tube for amplifying the playback, about 1914, that the magnetic recorder showed promise as a practical recording medium. The Naval Research Laboratory worked on the principle all through the '20s.

· War Stimulus-However, there were a lot of practical difficulties that were not really solved until World War II. Armour Research Institute and Brush Development Co. produced wire recorders that our armed forces used in great numbers for training, entertainment, and propaganda during the war. Bell Telephone Laboratories, Inc., designed a steel-tape recorder that announced the weather by telephone and allowed the visitors to the 1939 New York World's Fair to record and hear their voices on the telephone.

During the war, the Germans, working on another approach, developed a recorder known as a Magnetophone, which produced high-fidelity recordings on a magnetic plastic tape. Big customer was the Gestapo, which used it to eavesdrop on telephone calls.

When our Signal Corps investigators came across the German recorder they were much impressed. It had a frequency response of 5,000 cycles more than our wartime wire types, and 2,000 cycles more than the best prewar phonographs. Unlike wire, it could be easily edited. Patents were picked up by the U.S. Alien Property Custodian, and any company, that wished could copy it.

· Postwar-None of the giants of the



# Celanese creates new

#### horizons for industrial chemistry

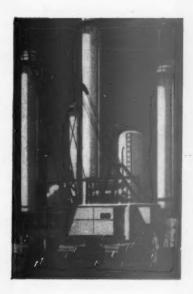


The rapid rise of Celanese Corporation of America from an obscure beginning to its current unique position, typifies the success saga of American business. In more than a casual sense, the Celanese story is that of the world's chemical plastics and textile industries. As a result of its infinite drive for perfection, the American people of every economic level are better dressed than any other nation of the world.

Celanese Corporation's integration program embraces affiliates in Europe, the Orient, Latin America, and extensive expansion of already vast operations in Canada and the United States.

On the domestic front, Celanese is enlarging its scope in the production of raw materials for the chemical, plastics and petrochemical fields, and developing fibers to put new emphasis on industrial synthetics.

Brown & Root feels signally honored to have been selected to design, engineer, and construct plants in three different nations, for Celanese Corporation of America. This is another example of the greatest names in American industry benefiting from Brown & Root's extensive experience in process engineering and construction.





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This nineteen foot Curtiss-Wright propeller (largest in service in the world) is currently installed on the Consolidated Vultee B-36 Intercontinental Bomber.

Equipped with hollow steel blades, it reverses in one second and feathers in less than three. The blades are deiced by internal flow of heated air.

The vitally important job of lubrication retention and dirt exclusion in the Blade Bearing Retention System of this great propeller is entrusted to the "Blade Nut" seal provided by Chicago Rawhide. This is a specially designed and molded C/R pressure type seal of Sirvene (synthetic rubber).

This is another example of the leaders looking to the leader for research,

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engineering and manufacture of the highest type. If yours is a particularly tough lubricant-sealing and dirt-exclusion problem, put it up to the people with most experience—Chicago Rawhide engineers.

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Oil Seals

recording industry appeared interested. For the first few years after the war, three small organizations did most of the development work: Rangertone, Inc., Magnecord, Inc., and Ampex

Electric Corp. In 1947 Bing Crosby, who insisted on recording his radio shows and who was dissatisfied with disk quality, met Jack Mullins, who had "liberated" one of the two Magnetophones that reached this country. When Mullins demonstrated that he could do a first-rate show on tape, Crosby backed Ampex and Mullins in producing an Americanized Magnetophone.

· Climbing-Since that time, tape recording has been breaking into one field after another. This year it's a \$65-million industry. By 1956 enthusiasts expect sales to hit \$200-mil-

#### II. Why It Happened

That brings tape well out of the gimmick class. One of the main reasons for its tremendous success in the last few years is simplicity of operation. Practically anybody can make a decent tape recording. That's because operating and editing are so easy. And that's why tape is now the big item, with other forms of magnetic recording such as wire, disk, drum, and core dropping to the rear.

The tape recording process can be easily understood, too. Here's how it works. When you speak, a microphone changes your voice into a series of electrical impulses. These impulses are routed through a magnetic coating on the tape in various patterns. In a simple way, the arrangement is like iron filings on a sheet of paper clustering about a magnet in a general science demonstration.

When the tape is replayed, the patterns produce the same electrical impulses that were fed onto the tape in the first place. The result is a lifelike reproduction of your voice emerging

from the loudspeaker.

The tape can be demagnetized or erased quickly and easily. This means that it can be re-used indefinitely. The tape can be cut and spliced with such great accuracy that even a final "s" can be cut from a word. Fluffs can be redone to provide a near-perfect finished product.

· Cost-Probably more than anything else fidelity was what gave tape recording its first big boost. But it is low

cost that has kept it going.

The cost of a tape recording still depends very largely on what it's used for. For monitoring calls or radio transmission-where the record is needed only a short while and then the tape can be re-used-it's very cheap. SoundScriber Corp. for example, in conjunction with



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St. Louis, Mo. · Trenton, N. J. · Whiting, Ind. (Chicago) In Canada: Federated Metals Canada, Ltd., Toronto, Montreal



faced with shrinking export volume

### TURNS TO MANUFACTURING IN HOLL

to maintain sales in non-dollar greas

With dollar shortages in many areas cutting into export sales, 21 major American companies, during the last four years, have established wholly owned subsidiaries in Holland. Plants of many of these subsidiaries are already in operation; others are under construction. During the same period, 17 other American companies have invested capital in Dutch firms for the manufacture of American-designed products. These American companies selected the Netherlands as the base of their foreign operations because . . .

American companies can operate free of restrictions and with full cooperation from the Netherlands government.

Almost all basic raw materials needed in manufacturing are free of import duties.

Holland has a surplus labor pool of conscientious, industrious workmen.

Economic stability gives a high living standard at moderate wages. Unique social stability means NO STRIKES.

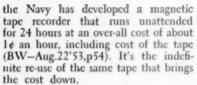
Profits can be transferred to the United States in dollars. Dollar investments can be retransferred.

Finished goods can be economically transported to other European countries over fine inland waterways, by road, rail, and from large seaports to other parts of the world.

Government aims are directed to attracting and assisting industry from outside Holland . . . AND . . . Political stability of the government insures continuance of its policies.

To assist American industry in evaluating the advantages of operations in Holland, the Netherlands government has assigned to a single agency—the Netherlands Industrial Institute

the handling of all contacts with American companies considering overseas operations. A 48-page book, "Industrial Possibilities in the Netherlands," gives comprehensive background



For professional uses such as radio transcriptions and for hi-fi enthusiasts. cost depends pretty much on fidelity desired. And fidelity depends on the speed of the tape past the recording head-the faster the speed, the greater the fidelity. Figuring a dual track 7-in. spool of tape at \$3.50, cost would be the same for one hour with tape speed of 34 in. per second, one-half hour at 7½ in. per sec., 15 minutes at 15 in. per sec.

· Duplicating-Until fairly recently, the advantage of tape over the pressure and wax system of recording was limited to cases where only a master and perhaps a few copies were required. This is because a master disk is expensive to cut, takes many hours to process, can't be edited. But once the master is made, cheap copies can be pressed by the thousands. (That's one of the things that originally gave disks the advantage over cylinders).

There's still a difference in price in favor of disks when a great many copies are made, but the differential is narrowing. Making tape copies is a lot simpler

Biggest duplication job to date, which involved almost 13-million ft. of tape, was accomplished just recently; it was completed in eight days by Audio & Video Recording Co. in New York. It consisted of a total of 10,769 copies of 11 different two-hour recordings of Jehovah's Witnesses' Assembly in New

#### III. Multimillion Business

With that development, it looks as if tape recording might get past one of the two obstacles to wider distribution and further business expansion. This hurdle has been the lack of large libraries of ready recorded reels for the public to buy. Audio & Video and Magnecord have libraries but until recently these contained mostly foreign

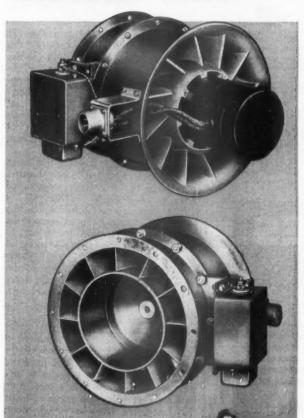
The other hurdle has been that until just this summer there were few popular priced recorders on the market. But a change seems certain now that RCA Victor has announced its confidence that tape recorders are going places. RCA Victor is backing up its fall portable model with the biggest advertising and promotion campaign in the industry's history.

Muzak's adoption of tape as an auxiliary medium is another boost. The company will use tape to expand its service to ships, airlines, and distant





AIRCRAFT FANS



The North American B-45 "Tornado" Bomber, like most U. S. aircraft, has many features designed solely for the flight personnel's comfort.

Acting on the logical assumption that a more comfortable pilot is a better pilot, North American engineers called for a cockpit-cooling system of Joy Axivane Fans to keep the flight personnel from melting while waiting for take-off on hot days. When the "Tornado" is airborne, the fans are used in conjunction with a heating system to furnish warm air for canopy defrosting. On the RB-45 photo-reconnaisance bomber, the same fans also keep the camera ports free from frost or fog.

The versatility of this system is largely dependent upon that of the Joy AXIVANE Fan. The fans used on the B-45A, B-45C, and RB-45C provide 250 CFM at 6.5" W.G., yet they are only 6.5" in diameter and weigh but 9 lbs.

• Joy designs and builds each fan to the exact requirements for which it is intended. Each fan, therefore, is custom-engineered for highest efficiency. For many purposes stock fans can be supplied from the extensive line already designed. Both single and two-stage units available. Optional features include straight or flared inlets, beaded or flanged connections, radio noise-filters, anodization, and cooled motors where required.

As the world's largest manufacturer of vaneaxial-type fans, Joy builds a complete line for industrial use in heating, blowing, exhausting or ventilating applications... ranging from tiny electronic-cooling fans weighing only 10 ounces, to huge forced-draft fans for power stations and story-high fans for mine ventilation. Let'us work with you. Joy Monufacturing Company, Oliver Building, Pittsburgh 22, Pa. In Canada: Joy Manufacturing Company (Canada) Limited, Galt, Ontario.

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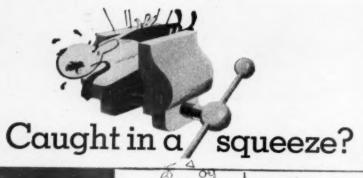
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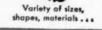
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ent process







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establishments where the conventional

wire costs would be prohibitive.

• Growing—Tape has already been parlayed into a multimillion dollar a year business. Minnesota Mining & Mfg. Co., which developed the now standard iron-oxide tape and which claims better than half the world market, last year manufactured one-half million miles of the stuff. Other big names in the field are National-Standard Co., Audio Devices, Inc., and Reeves Soundcraft Corp.

Recorders themselves fall into four price ranges. Home recorders sell for \$100 to \$300. From \$300 to \$500, sets are for advanced amateurs. Professional sets run from \$500 to \$3,600. Very special, custom-made units for research may cost \$18,000 to \$20,000.

The industry is growing rapidly. There are now about 40 companies turning out sets and perhaps 13,000 retailers selling them.

• Markets-Since tape passes through a number of channels to final markets, it's difficult to say where most of it finally goes. Three-M estimates that the three biggest markets, roughly equal to each other in dollar volume, are (1) the home and hi-fi market, (2) the school and church market, and (3) the radio-TV-movie market.

Together these three markets probably account for two-thirds to threefourths of all tape being sold. The rest of the volume of tape goes into commercial uses and a wide variety of smaller markets such as instrumentation and computing.

• Break-The trade expects the break in the home market to come shortlydepending on how soon pre-recorded tapes become widely available.

The machines themselves reflect this expectation. Manufacturers seem to be paying more attention to styling to make the machines acceptable pieces of furniture for the living room. Partly that reflects the fact that many educators and businessmen already carry them home at night or on weekends.

#### IV. Broad Future

Uses of tape recorders are limited, it seems, only by the imagination of the user. A zoo curator uses tape to record small animal noises for posterity, like the patter of a centipede's feet. Auto engineers study engine noises. Tapes call customers' attention to sale items in retail stores. Salesmen who hate paperwork have been doing what comes naturally by talking in their orders and reports. One woman felt she got her money's worth merely by proving to her husband that he snored.

Here are some potentially big uses to keep an eye on:

· Stereophonic sound for widescreen movies looks like a big field

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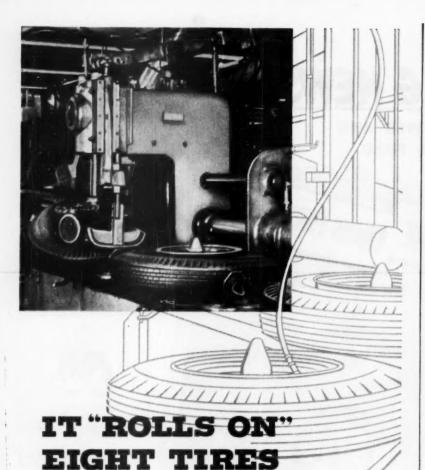
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now. Most studios are using magnetic tape for sound tracks as contrasted with the conventional photographic sound on film.

• Three-M and others, in addition to Bing Crosby Enterprises, are working on tape-recorded television (both picture and sound). Crosby expects the system to provide eventually a cheap means of recording a color TV program for repeat performances.

• Scientifically, the greatest contribution of tape may be in telemetering—or recording of measurements made at a distance. This is still largely a hush-hush application tied up with guided missiles and buried in learned journals. Its purpose is to pick up and translate information about operating characteristics in the stratosphere—such things as engine temperature, speed.

• Tape also fits neatly into the automation pattern in industry. The National Advisory Committee on Acronautics, for example, is using tape in making jet turbine blades. Usually, complicated items like the jet blade are turned out by a lathe having a master blade serve as a pattern. The lathe follows the pattern. Now all the data can be fed on tape, and as the tape unwinds the impulses originating from it actually operate the lathe, thus eliminating the need for a handmade master.

#### PRODUCTION BRIEFS

A \$300-million taconite plant has been started by Eric Mining Co., Cleveland. Eric has awarded a ground-clearing contract to Peter Kiewit Sons' Co., Omaha, Neb. The plant, located near Aurora, Minn., will have an annual output of 10.5-million tons of taconite concentrates for the steel industry.

Product diversification is under way at Motch & Merryweather Co., Cleveland. A producer of precision machine tools, the firm has set up a separate division for making multipurpose power tools for garden use.

Silicone rubber (BW-Sep.5'53,p70), a product of General Electric Co.'s chemical division, has a high-temperature application in the 340 Convair Liner of Consolidated Vultee Aircraft Corp. It's used to coat the connectors of the Convair's exhaust ducting, whose operating temperature is higher than the melting point of solder.

A year-long moving job is ahead for Davis & Geck, Inc., a subsidiary of American Cyanamid Co. that makes surgical sutures. It will move from Brooklyn to Danbury, Conn.—and during the transfer will keep up full production.



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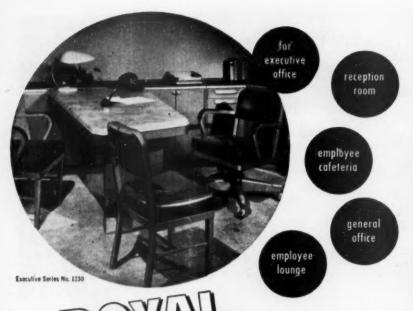
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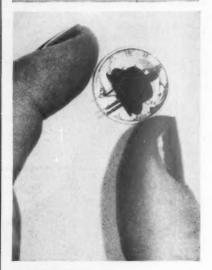
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#### **NEW PRODUCTS**



#### More Transistor Power

Advances in the engineering of transistors for the electronics industry are

coming rapidly.

Last month, Sylvania Electric Products, Inc., brought out a transistor that is more versatile than conventional types, can duplicate the operation of multi-element electronic tubes (BW-Aug.1'53,p50). Now, General Electric Co. has a transistor that moves another step ahead, engineering-wise. GE's version has:

- · Power handling ability (150 milliwatts) three times that of other current models.
- · An all-welded metal shell that protects the inner workings of the transistor's elements.
- · Ability to operate through a wide range of temperatures and resistance to moisture.

GE's transistor, called 2N43, was re-cently introduced in San Francisco at a convention jointly sponsored by the Institute of Radio Engineers and the West Coast Electronics Manufacturers Assn. During a demonstration, 2N43 powered a miniature radio transmitter, was put through a rough shakedown

Broadcasting a tape recording, the little radio "station" was frozen in a block of ice. Next GE engineers melted the ice, brought its water to a boil. Neither cold nor heat affected the transmitter's signals.

The increased power of GE's transistor makes it adaptable to more consumer, industrial, and military uses. But high-power capacities, says J. H. Sweeney, GE's manager of germanium products, are still in the offing. Sweeney thinks that within a year or more GE's research at its Electronics Park (Syra-

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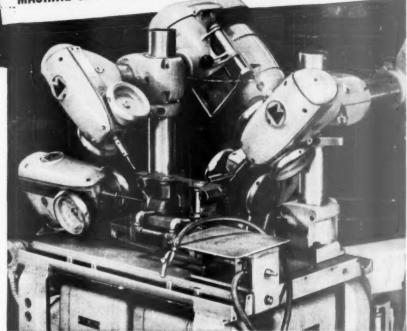
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cuse, N. Y.) will boost the power capacities, and raise the operating ranges into the ultra-high frequencies.

The firm has designed automatic machinery that will turn the transistors out on a mass-production schedule. The machinery will be started this year at the Clyde (N. Y.) plant. Next year, GE aims for an output of about 3-million transistors, and by 1960 around 250-million.

• Source: General Electric Co., Germanium Products Div., Syracuse, N. Y.

• List Price: \$11.90 to \$23.75.

#### **NEW PRODUCTS BRIEFS**

A detergent for travelers, called Trip Suds and put up in individual packets by Doyle-Decker, Inc., 10 East 39th St., New York 16, N. Y. is designed for laundering on the road. A Trip Suds package holds 20 of the packets.

A packaged air cleaner for the home is made by Westinghouse Electric Corp.'s Air Conditioning Division. The electronic device, called Precipitron, is said to remove 90% of all air-borne dust as small as tobacco-smoke particles. The cost, including installation charges is about \$385.

A self-wringing patented attachment features a new industrial sponge mop. Called Flexi-King, the mop comes in two sizes: a commercial model that has a 38½ sq. in. mopping area, and a heavy duty version that covers 63 sq. in. The manufacturer is Flexy, Inc., New Holstein, Wis.

**S&F** Gear Tester gives a visual check of all types of fine-pitch gears, is imported by Kurt Orban Co., 205 E. 42 St., New York 17, N. Y. The contours of a gear are recorded on a paper chart at magnifications of 100, 200, 250, or 400 times—depending upon the check that's needed. The tester is supplied in both manual and motor-driven models.

Vinyl plastic is being laminated on sheet steel and aluminum to provide color, decoration, and corrosion protection. Naugatuck Chemical Division of U.S. Rubber Co. says its Marvinol plastic is going into such products as building siding, lawn furniture, truck panels, counter tops, and lockers.

Lighter weight is the big selling point of a new line of selenium rectifier type d.c. are welders offered by Westinghouse Electric Corp. Coils are made of aluminum wire, which weighs about half as much as copper. Design modifications are also said to provide better overload protection.

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Operators, in steadily increasing numbers, have also found that this rugged floor has extra resistance to the impact of bulk loading by mechanical means, and actually increases the structural strength of the entire car when welded to the car structure. This results in important savings in car maintenance and in car life. With blocked loads, damage to lading is markedly reduced. Nailable Steel Flooring is made of tough, durable N-A-X HIGH-TENSILE steel, also

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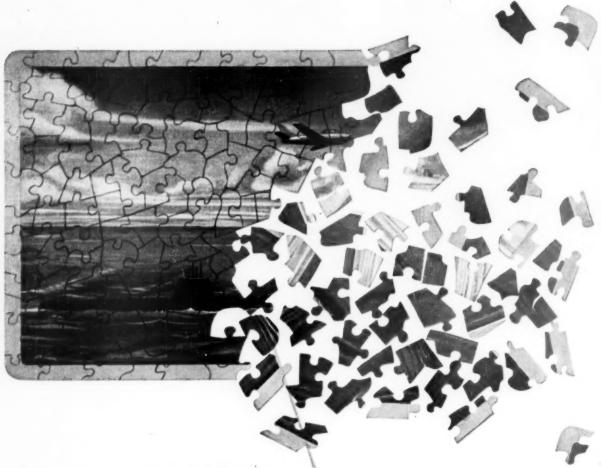


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#### GENERAL DYNAMICS







## GOVERNMENT



# 

# McKay: Changing a Power Trend

The New Deal's great public power crusade is dead. The man most responsible is Secretary of the Interior Douglas McKay (cover), a scrawny, leathery westerner who looks a great deal more like a down-East Yankee.

McKay, one of the least known members of the Eisenhower Cabinet, is calling his own signals on federal power, as well as other resources policies, just as his New Deal predecessors—Harold Ickes and Oscar Chapman—called the tune in the public power heyday.

The McKay power policy, announced recently (BW-Aug.22'53,p34), dealt in semitechnical terms with all the farreaching operations of the federal government in the electric power field. Industry people are at odds over the meaning of several points covered in the statement.

But one thing is certain: McKay has rung down the curtain on the kind of "damn-private-industry, governmentshould-build-everything" policy on federal power followed by his Democratic predecessors at Interior.

• Policy and Man—But he's not an extremist in the other direction, either. Private utilities didn't break out in cheers over the McKay policy statement—anything but. McKay didn't go so far as a lot of the industry thought he should. He isn't going to "sell" Bonneville Power Administration or the vast Reclamation Bureau electric empire. But any future development will be strictly

up to private industry first, and Washington will have only a rear-guard function. And the tub thumping for a project will have to start in the grass roots, rather than being inspired by agents of Interior.

This is just the sort of policy that power people—both public and private—might have expected from Oregon-born, politically wise Doug McKay. He knows firsthand what a power dam, which also provides irrigation water, can do for the western farmer, big and small. But he's also well aware that the same farmer didn't like to be told by some bright youngsters from Washington what he had to do to get water and power from such a project.

#### I. Basic Idea

How McKay dealt with this problem is a tip to other businessmen interested in Interior's administration of federal grazing lands, mineral deposits, fish and wildlife preserves—to name a few.

The formula, judging from the power policy, is to be: Let the people most interested decide what they want. Keep the government out of the promoting and bossing of any job, wherever possible. But let Washington do the whole job, if the project is really urgent and no one else can handle it.

• Flexible—This formula, admittedly, has a lot of flexibility—or fuzziness, if you choose to call it that—built into it.

McKay is not so doctrinaire that he would box himself in politically when he doesn't have to. Hence, hep politicians in Washington agree that McKay could turn around on almost any specific federal high-dam power proposal—all he'd have to do would be to conclude that (1) it's what the local people want and (2) they really need the support of the Interior Dept. to lend them a hand—or lead the way.

• But Firm—But as things stand now, there's no question about where his influence falls: He's against pushing for pet projects—and that in itself is a real overthrow of the Democratic Party's way of running Interior.

Vesting more reliance in private initiative and local government to develop the nation's resources is more than just a personal McKay philosophy. He feels it's a mandate of last year's election. He wants it understood there is plenty of room for federal partnership in the West. But he says:

"I agree with the philosophy that the government should not be competing. We are in the power business already and I would not want to see that scrapped, but I believe that private enterprise should have the opportunity to live and the government should in no event put roadblocks in the way of either private enterprise or co-ops of public-owned utilities."

That sums up the fundamental idea: that the national welfare will benefit



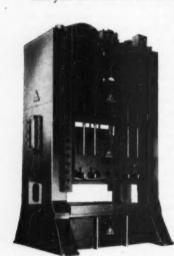
# Do Caterpillars Know?

The coat coloring of the "woolly bear" predicts the mildness or severity of the coming winter, folklore experts believe. But this furry caterpillar wisely spends his winter in a snug cocoon, cozily unconcerned about folks who believe his prediction.

Time-worn ideas like this one often cling in spite of the cold analysis of modern science. Adherence to traditional methods

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from a greater exercise of private initiative and local responsibility in the power field.

#### II. Spelling It Out

With characteristic impetuousness, McKay began to cool Interior's zealous espousal of federal power soon after taking office.

First off, he relinquished Interior's role as a special pleader for a federal high dam on the Hell's Canyon stretch of the Snake River in Idaho.

Then he came up with a complete rewrite job on the 1946 power policy memorandum of the late Harold Ickes, which to New Dealers was sacred scripture.

Main points in the McKay power policy, which incorporates the philosophy of greater local responsibility, are:

 Responsibility for supplying power needs rests with the local area and is no longer assumed by the federal government.

 The federal government will provide transmission facilities only when they cannot be furnished by other agencies at reasonable cost.

 Public bodies and co-operatives will have first call on any block of federally produced power at the time it comes into being, but the remaining portion of the power will be sold to privately owned utilities under equally long-term contracts.

 Interior Dept. will not exercise control over retail power rates of public bodies buying federal power, but for electric companies provision will be made for some control.

• Guide—With adaptations to suit the specific situation, this policy will guide McKay's staff in tackling the other federally controlled resources administered by Interior, and in determining policies for individual bureaus. You can look for the following:

Public lands: Opening more of this vast domain for private use and development, and exercising less control over the rights of way granted to public carriers such as pipelines and transmission lines.

Mining: Interior will confine its activities mainly to accumulation of statistics and research and development. On mine inspection and safety, there'll certainly be no crusade for extending federal control.

Fish and wildlife: Major aim will be to protect species against depletion, but emphasis will be on new methods of protection that will open water resources to other development.

Irrigation and reclamation of lands: Local interests will have to supply the leadership, but Interior will step in if projects are beyond local means.

Indians: The long-range goal is to integrate these wards of the govern-



Perhaps 800—like those that are York Conditioned in Cincinnati's beautiful Netherland Plaza?



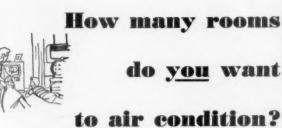
Or the special needs of a complete shopping center, such as this modern Indianapolis building with its selling areas, offices, storage rooms, etc.





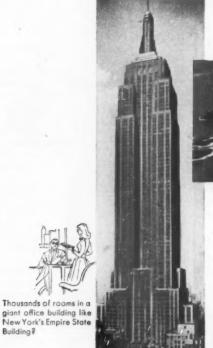
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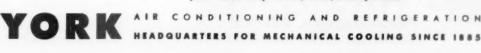


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PROFIT-BUILDING IDEAS FOR BUSINESS

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Territories: For Hawaii, statehood now; for Alaska, later.

#### III. The Man

To the federal power advocates, the flavor of this Republican attitude toward power and other resource development is purely negative. True, it is just the opposite from the New Deal crusade for more and more federal development of the nation's resources, and more and more direct aid to public bodies to get them in the power business. But Republicans see it as something positive.

The man charged with giving constructive and dramatic flair to the Republican policy is Secretary McKay, who came to Washington after a colorful career in Oregon politics and a business success as one of the state's largest. Chevrolet dealers. He came up the hard way, and his business experience dates far back into his youth, when he delivered newspapers, drove a butcher wagon, worked as an office boy for the Union Pacific, and ran a small laundry.

McKay is a native of Portland, Ore. His pioneer grandfather came to Oregon in the 1840s for the Hudson's Bay Co. His father was a carpenter, and young McKay dropped out of school to help add to the family income.

Later he worked his way through Oregon State, majoring in agriculture. His diploma was mailed to him at an Army camp where he was training for service in World War I.

On borrowed money, he set up his own Chevrolet and Cadillac agency in Salem, Ore., in the early '20s after serving as a salesman and sales manager for another auto dealer.

• Personal—McKay's way of living reflects his origin and experience. His wife, the former Mabel Hill, whom he met during college days, keeps their own apartment in Washington without a maid. She is a many-time winner of baking contests at Oregon fairs and her angel food cake has been approved by McKay's office staff in Washington.

For relaxation, the former auto salesman takes to horseback riding. His own favorite saddle horse, Eugenia Peavine, hasn't been brought to Washington vet, but on Sunday afternoons, McKay borrows a saddle horse from his own Park Service police to ride the bridle paths of Washington's Rock Creek Park.

On horseback, he has inspected both the park and several of the national monuments that are also under his jurisdiction. McKay likes to point out that he is also "exercising some of the park police horses that don't get







# TALK IS CHEAP but what dividends it pays!

Plain, uninhibited talk is still one of mankind's favorite diversions. Witness the "coffee break." Here chatter and gossip flow more freely than coffee and cream.

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enough exercise otherwise-just another service beyond the call of duty."

• Political—His career in politics is two decades old. It began in 1952—hardly a Republican year—when he was elected mayor of Salem. He went on to become state senator and finally ran for governor in 1947 to fill the unexpired term of Gov. Earl Snell, who was killed in a plane crash.

He announced his candidacy for governor in characteristic terms: "I'm not mad at anybody. If the people want me, O.K., if they don't, O.K. I'm a rugged individualist exercising my Am-

erican rights."

#### IV. Job Ahead

McKay has had a difficult time getting his Interior Dept. organized, and still has a lot of gaps to fill. His chief of staff, Under Secretary

His chief of staff, Under Secretary Ralph A. Tudor, carries a good deal of the day-to-day routine. Tudor is a career engineer who gave up a prosperous consulting business in San Francisco to take the Interior job.

Former North Dakota Gov. Fred G. Aandahl administers the highly controversial water and power agencies at

Interior.

• Holdovers—But in all, McKay has been able to choose less than 30 high-level assistants in a department with 57,000 employees. A relaxation of civil service protection over the policy-making jobs has done little to help McKay put sympathetic administrators over his broad domain.

A New Deal Democrat, Paul J. Raver, still holds the sensitive post as head of Bonneville Power Administration. In the Southwest, an Ickes-appointed man is still in charge of federal power marketing at Southwestern Power Administration, another Interior

agency.

• Public Relations—Thus far, McKay has devoted most of his efforts to translating last year's campaign speeches into departmental policy. Now he faces the additional task of running his Interior affairs with a keen eye toward next year's Congressional elections.

Of all government activities, with the possible exception of taxes and the farm programs, the policies administered by McKay most directly affect the lives of the nation's voters—and hence throw McKay willy-nilly right into the policial

arena.

Not only must he sell his program of more private and local participation in resource development; he must also call the plays on just how much of a policy change is politically feasible.

As much as any other man in government, McKay realizes the political popularity of a new waterway project, a new national park, the full protection of commercial fishing on a few of the

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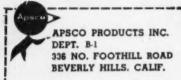
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NAME.....

nation's streams. In Oregon he sparked the local drive for development of the Willamette Basin, serving for 15 years as chairman of the Basin Development Committee. Since he took over as secretary he dedicated the federally built Detroit Dam, which was a key structure in the Willamette scheme.

· Not Too Far-During the early budgct-cutting days of the Eisenhower Administration, McKay plugged hard to keep new multipurpose project starts in his Bureau of Reclamation budget. He felt some concrete assurance was needed that the Republicans would not bow out of the basin development

He is still convinced that some new project starts are needed, but he knows that the fighting is all uphill in light of the continued economy drive. Meanwhile he is conducting an all-out drive for authorization of such noncontroversial waterway developments as the Frying Pan-Arkansas multipurpose project in Colorado. If he can't get the money now, he wants to be ready to start when he does get it.

As a westerner, the secretary knows that water and electric power are a matter of life and death in many of the western areas. He knows, too, that his Democratic predecessors at Interior played the role for every vote they could get.

The nation's citizens voted for a change in November of last year. McKay's toughest job is to determine just how much of a change they really



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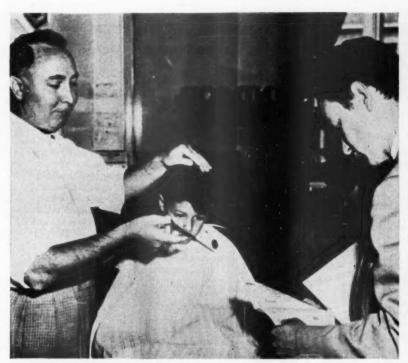
menents of KLIXON inherent Overheat Protectors.

"As a service man I see the need of protection in motors. In fact, I know of one motor manufacturer who built a good motor, but went out of business because he did not have protection in his motors. I believe he would still be in business, if he had used Klixon protectors. We do far less rewinding of motors which have Klixon motor protectors in them."



The KLIXON Protector, illustrated, is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer-preference, reduced service calls and minimized repairs and replacements, it will pay you well to ask for equipment with KLIXON Protectors.

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HAIRCUT OR NOT, a Los Angeles barber answers a tax agent's questions as . . .

## Tax Canvass Hits the Jackpot

In recent weeks, a lot of surprised citizens like the barber above have looked up from their daily chores straight into the eyes of a tax agent. All through the summer, the Bureau of Internal Revenue has been launching door-to-door campaigns in regions around the U.S. to check up on tax returns.

When results started coming in, it was the bureau's turn to get some surprises:

 Added revenue has far exceeded the cost of the program, which means the tax canvass will almost certainly be continued and expanded.

Most taxpayers in the areas covered do not resent the campaign. The "invasion of privacy" wail has just about died though the project is barely under way.

• The power of suggestion has pulled in more extra revenue than the inquiring tax agents themselves. When a taxpaver figures he's in for a visit, he suddenly remembers all the things he forgot to include in his return—or even that he forgot to file a return.

• Profitable—Spot-checking two Internal Revenue regions that have completed canvasses, business week reporters found that in four days in New England (two in July, two in August) \$400,000 was brought out of hiding, and that in the eastern half of Missouri the take is expected to be \$150,000.

Officials in the San Francisco Internal Revenue office had no statistics at hand, but feel certain their campaign, too, will more than pay for itself.

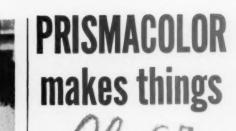
In New England, Internal Revenue people estimate the door-to-door canvass brought in \$35 for every dollar laid out. In Missouri, District Director Gus F. Koehler says his operation cost \$2,000 in extra traveling expense, garnered a yield of \$75 for every additional dollar spent.

These figures look even more significant in light of the fact that T. Coleman Andrews, U.S. Commissioner of Internal Revenue, recently estimated that normally the government receives \$10 to \$15 in taxes for every dollar expended on tax collection.

While in New England the emphasis was on individuals and in Missouri on small businessmen, the percentage of those failing to file a return turned out to be just about the same: 13% in New England, 14% in Missouri. In New England, 8,000 people were interviewed; in Missouri, 7,662 business houses.

• The Pattern—In Denver, tax agents have been seeking out evaders by comparing classified telephone book listings with records of tax returns.

But New England, Missouri, San Francisco, Los Angeles, Nebraska, and parts of Texas and Ohio all have conducted their campaigns on a door-to-





GRAPHS Color tells facts at a glance.



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"X" marks the defect, red identifies the inspector.



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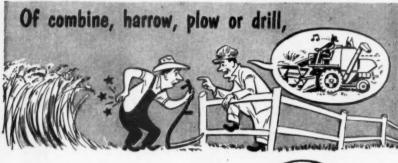
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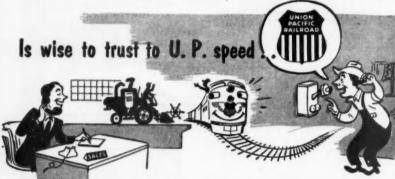
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"... in St. Louis, all people interviewed were very friendly ..."

TAX CANVASS starts on p. 71

door basis. In the various states, the pattern of approach used is the same—and so is the taxpayers' reaction.

Each agent carries a checklist of seven different federal tax returns: income, estimated income, withholding, social security, federal unemployment, retail excise, and various tax stamps. At each stop he asks questions to establish which returns the taxpayers should file, then asks to see copies. If all is in order, that's the last the taxpayer sees of the agent.

If some returns are missing, the taxpayer is warned to file, or in a few days he may get a letter ordering him to appear at the collector's office. If some errors are apparent, the agent works with the taxpayer to correct them. (In New England and Missouri the agents are permitted to collect taxes and penalties due; in San Francisco, they can't collect money.) It's all very polite and friendly.

• No Invasion—It is just this aspect of the new program that has taken the curse off it from a civil liberties angle. Instructions to New England agents are typical: Under no circumstances will an agent enter a home unless invited to do so, and for the purpose of helping the taxpayer.

Actually, although by and large the taxpaying public doesn't realize it, Internal Revenue agents since 1928 have had the power to trot around to your home or place of business unexpectedly and ask to see your records.

• No Protests—Shortly after the New England canvassing campaign got under way, Commissioner Andrews in a speech in Boston said, "It's hard for me to understand why any person who, year in and year out, files his return and pays his honest taxes should object to us locating, by any reasonable means, a man who has been consistently dodging his tax responsibilities. I'm sure there can't be many who object."

Agents' experiences in New England and Missouri bear him out. In the Boston area, news photographers trailed agents all day long, hoping for a picture of an irate householder bawling out a tax collector. It didn't happen. Instead, more than one taxpayer expressed satisfaction that the government was out to get the delinquents.

In St. Louis, Director Koehler says that all people interviewed were very friendly and quite a few found lax even thanked the agents for reminding them of their delinquency. Koehler cited the general store proprietor who had not

# clothes come clean ... at home

"Cleaner!" "Whiter!" "Quicker!" Those sprightly soap jingles would be meaningless, without the help of the modern washing machine!

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PYRENE MANUFACTURING COMPANY
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paid \$4,000 in excess taxes from Jan. 1, 1942, to May 1, 1953. "He wasn't unhappy about it at all," said the agent who checked this store, "said he had neglected to send it in."

• Suggestible—But most surprising to tax officials is the power of the suggestion "you may be next." Shortly after Koehler's agents started fanning out through their territory, a cabarct operator walked into the St. Louis tax office and paid up \$900 in delinquent cabaret taxes. "I heard your boys were in town," he said, "and remembered I forgot to pay this tax."

That pattern has run through the entire BIR doorstep operation. In fact, \$50,000 of Koehler's \$150,000 of new tax receipts came from people who were not even in the area being canvassed. In New England, the first two-day canvass produced only \$80,000 through agents. More than double that amount was sent in voluntarily by delinquents.

# First Tideland Leases Bring Texas Big Bonus

Texas has received a whopping \$128.63 per acre bonus for the first oil and gas leases in its tidelands since the federal government recognized state ownership of the offshore lands. That compares with a bonus averaging slightly over \$20 an acre at the last previous sealed-bid sale of leases in the Gulf of Mexico in 1947, before Uncle Sam claimed title.

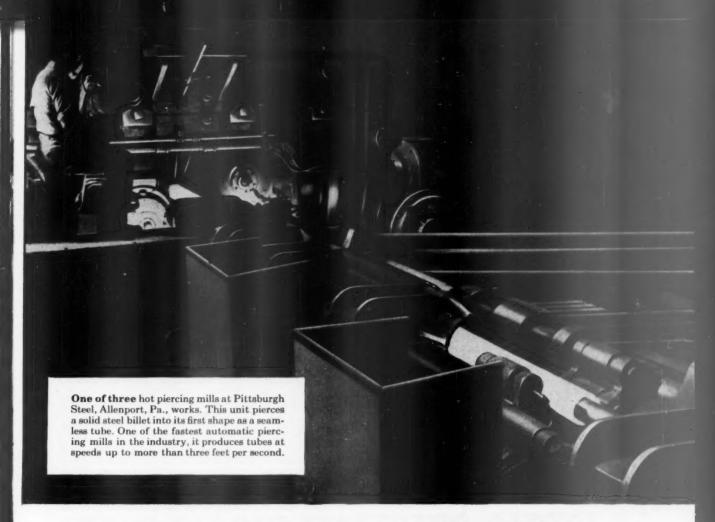
The Texas School Land Board was highly pleased at the results of the latest offshore leasing for the state's public school endowment. It plans a much larger offering of oil and gas acreage for bidding on Dec. 1.

• Title—The new law signed by President Eisenhower recognizes state title to offshore lands out to the historic boundaries (BW—Jun.27'53,p77). In the case of Texas, that's three leagues—about 10.5 mi.—out, and takes in more than 2.6-million underwater acres.

Before the title dispute, the state had leased 160,000 of these acres, and had sold leases on 145,000 acres more outside the three-league line, on the Continental Shelf. The exact federal-state line has still to be negotiated. Texas also has an 11,000-acre boundary dispute with Louisiana.

• Revenue—The four tideland leases just sold are near the Louisiana line but reportedly outside the disputed area. Stanolind Oil & Gas Co. paid \$329,300 for drilling rights for all four. It must also pay an annual rental, plus a one-eighth royalty if commercial production results.

Arkansas Fuel Oil Co. paid \$207,049 for rights on a close-in salt water tract of 640 acres in Corpus Christi Bay.



#### **Expansion Must Have Strong Foundations**

When Pittsburgh Steel Company launched its \$62.8-million Program of Progress, it had strong foundations to build on. These foundations consist of some of the most modern equipment in the industry for high-quality seamless tubular and wire products.

On the strength of these facilities, Pittsburgh Steel has kept rolling steadily ahead as it expanded its steelmaking capacity by 48% and began increasing its finishing facilities by 82%. Construction of its new hot-rolled sheet mill is complete, and by early next year a new cold-rolled sheet mill will be in production. Pittsburgh Steel will be entirely transformed into a new steel company.

Throughout this expansion, advances in the production of seamless tubes and wire products have kept pace. One example is the installation, at a cost of over \$2 million, of the industry's fastest and most automatic seamless casing finishing line to speed production and improve the quality of finished seamless tubes. This and other improvements mean Pittsburgh Steel is better equipped than ever before to serve you with the products it has always made, as well as with the products it is making for the first time.

The entire production structure of the company has been strengthened . . . its market position has been improved, because it is able to offer a broader range of products...its earnings potential for stockholders has been increased... new advancement opportunities have opened up for its employees. You are watching the birth of a stronger new integrated steel producer... to serve the nation's peacetime industries, and if needed, to supply new muscle for defense.

#### **Program of Progress**

Acquisition of Thomas Steel	100%	Complete
Increase of Blast Furnace Capacity by 12%		
Increase of Open Hearth Capacity by 48%		
Installation of new 66-inch High Lift Blooming-Slabbing Mill		
Installation of Continuous 66-inch Hot Rolled Sheet-Strip Mill		
Installation of 66-inch Cold Rolled Sheet-Strip Mill	80%	Complete

"Everything New But the Name"



# Pittsburgh Steel Company

Pittsburgh 30, Pennsylvania



"What has she got that...?"

... gives her such a fast getaway at five p.m., while you are still wet nursing stamps and envelopes? ... Just a postage meter, sister!

- Now any office can afford the little DM, desk model meter...which does away with old fashioned stamps, licking, sticking, and the stamp box.
- It prints postage, any amount needed for any kind of mail, right on the envelope... with your own small ad, if you like. Supplies parcel postage on special tape. And has a moistener for sealing envelope flaps.
- The DM can be set for as much postage as you want to buy...protects it from loss, or spoilage, and automatically accounts for it. A time and postage saver, too!
- Other models, hand and electric, for larger firms. Ask the nearest PB office to show you. Or send the coupon.

FREE: Handy wall chart of Postal Rates, with parcel post map and zone finder.



## COCA LEUSIUS INTESSE



#### Street of Model Homes

KNOXVILLE—A model home or even two—in a new development is nothing unusual. But an entire development of nothing but model homes is something else again. This week a group of 13 model homes, all different, each built by a different contractor, opened for public inspection in the Holston Hills section of Knoxville.

The homes are all along the same street (picture)—seven on one side, six on the other. Each is built according to the individual contractor's and architect's concept of economy, comfort, and appeal. All grounds are completely landscaped, and all houses are furnished.

The display is sponsored by the Knoxville Home Builders' Assn., as part of the observance of National Home Week. A representative of the National Assn. of Home Builders will judge the homes, pick the builder who has done the best job of promotion. Minneapolis-Honeywell Regulator Co. is offering the winner a nine-day free trip to Mexico as a prize.

NAHB and M-H are jointly sponsoring similar builder contests in each of NAHB's 20 regions. But Knoxville believes its display is the only one where all the homes in the contest are at the same location. In last year's Parade of Homes here, the houses were built in various parts of the city. But the builders found that most residents (or potential customers) didn't get to see all of them. The all-together arrangement

gives interested citizens a chance to see all the homes on a single trip. The 13 contractors are jointly building a free playground for the area.

All 13 homes are for sale; prices range from \$12,000 to \$16,000. Any one of the builders will build a home similar to his model anywhere in the area. Furnishings in the models have been supplied by local retailers. The buyer of a home can buy them, too. If he doesn't want them, the retailer will take them back.

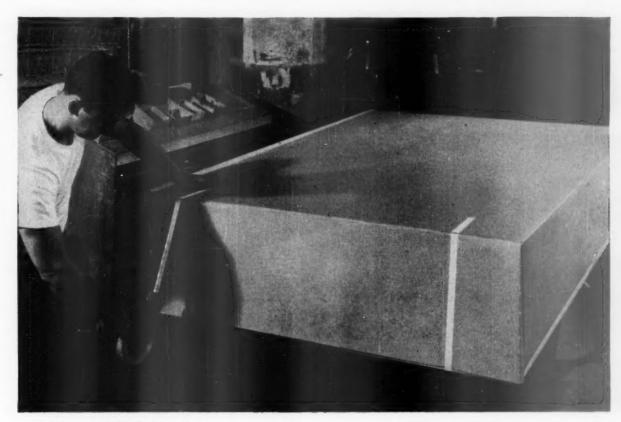
#### Geology Tips the Scales

CHATTANOOGA-A six-month war was ended last week when Crane Co., of Chicago, finally decided on Chattanooga as the site for its \$26-million titanium plant (BW-Aug.29'53, p41). Crane had held options on land both here and in Nashville, and the two cities have had a bitter battle over which would get the plant.

Crane went site-hunting in Chattanooga first. Then the industrial agent for the Nashville, Chattanooga & St. Louis Ry. made the initial contact for Nashville, and the city's chamber of commerce rallied behind the railroad. Negotiations in Chattanooga were well guarded, though it's understood that a group of Chattanoogans offered Crane the site free. In Nashville, however, the negotiations were an open book, since the site in question was part of the state prison farm, and the legislature had to pass a special act to permit its sale.

Chattanooga harped on the fact that

Address.



King Koil finds...

# TAPE CLOSES MATTRESS CARTONS 3 TIMES FASTER!

Super-strong "Scotch" Brand Filament Tape saves 27¢ a unit compared to old-fashioned banding that cut into cartons, damaged goods.

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They found "Scotch" Brand Filament Tape not only faster and easier to apply, but more dependable, too. The

resilient, pressure-sensitive tape sticks tight to the job—and absorbs repeated impact shocks that would snap ordinary materials in a second!

Add up the facts: faster production, lower costs, fewer damage claims. Why don't you switch to "Scotch" Brand Filament Tape?

Your distributor can supply you in any of 3 colors and transparent, many widths and lengths. Order a supply today or write Minnesota Mining & Mfg. Co., Dept. BW-93, St. Paul, Minn., on your letterhead for a copy of "'Scotch' Pressure-Sensitive Tapes

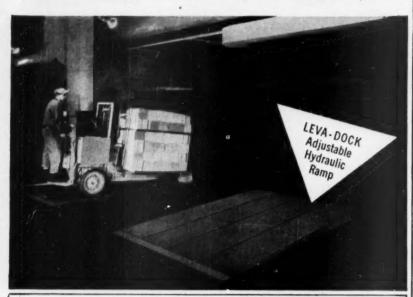




The term "Scotch" and the plaid design are registered trademarks for the more than 300 pressure-assaitive adhesive tapes made in U.S.A. by Minnesota Mining & Mig. Co., St. Paul 6, Minn.—also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Salety-Walk" Non-alip Surfacing, "3M" Abravives, "3M" Adhesives. General Expert: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



# New HYDRAULIC RAMP makes big savings at your loading docks





Moving Up or Down, the Leva-Dock Ramp keeps on the level •with the truck or trailer bed. It compensates 4 ways for varying truck bed heights, out-of-level trucks, and truck spring deflection during loading and unloading.

#### Faster Handling • Less Breakage • Prevents Accidents

The Leva-Dock Ramp is a hinged platform positioned by a hydraulic jack. It fits into your loading dock as shown above. Four steel sections rest on truck or trailer bed and travel up or down as loading or unloading progresses.

The new Leva-Dock Ramp makes it possible to handle heavy loads in and out of trucks and trailers without using steel plates, bridge ramps or slow and expensive methods. The platform will support 20,000 lb. loads rolled backward and forward, or from side to side. It becomes part of the loading dock floor when not in use. A new automatic safety device prevents accidents and costly. time consuming delays.

This rugged, self-contained unit has its electric power system and oil reservoir mounted right in the torque-tube frame, Installation is simple-operation is very inexpensive. Dependability is assured by Rotary's experience in building over 75,000 elevating devices.

For complete data, write

Rotary Lift Co., 1032 Kentucky, Memphis 2, Tenn.



Rotary also makes: Levelator Lifts-Oildraulic Transfer Bridges-Freight, Sidewalk and Passenger Elevators-Automotive Lifts.

the Nashville tract had no water or sewage connections available, and that it would cost more to build these facilities than to buy the site itself. So the Nashville City Council offered to build the sewer line and to rebate the cost of the water line to Crane over a period of several years.

Then a bitter strike in Chattanooga, replete with violence, played right into Nashville's hands. Even the Chattanooga News asked in a front-page editorial: "How can Chattanooga in good conscience invite new industries to this city where . . . destruction and violence await them?"

What was the major factor in Crane's decision to locate here? Geology. The limestone rock that underlies the Nashville site, according to a Crane official, would have (1) made construction take longer in Nashville, and (2) made it extremely difficult to expand the plant later if needed.

#### To Tax or Not to Tax

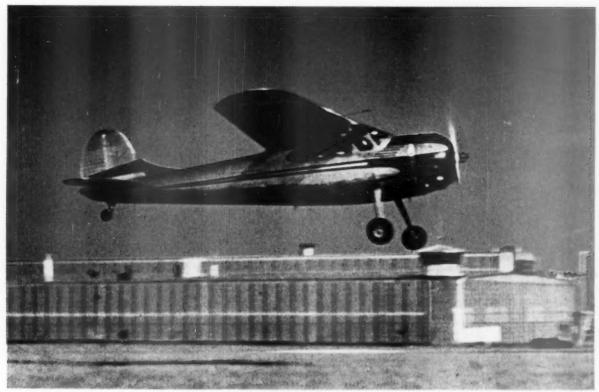
SCHENECTADY - It's generally conceded that federal government property should be exempt from local taxation. But what about federally owned property that's leased to and used by a privately owned, profit-making business? That's the question confronting Schenectady today.

For years the old Weber Electric plant on Campbell Ave. lay idle. Then the federal government took it over, built it up, and leased it to General Electric Co. for the manufacture of armament and ordnance control systems. The tax assessor appraised it at \$446,260 for tax purposes. And the federal government promptly filed a formal claim that it be removed from the tax rolls entirely.

The government argues that it should be tax exempt because it's federally owned. The assessor says it should be taxed because a private firm is using it to make money. City officials have already agreed to the government's demand. But county and school district officials are still thinking it over.

#### Update

WEBSTER, N. Y.-Early month this Rechester suburb clapped a moratorium on all new building pending a study by a citizens' committee on what to do about the city's too-rapid growth (BW-Aug.8'53,p147). week the committee submitted its preliminary report. Its chief recommendations: (1) an increase in the minimum size for a building lot from the present 7,500 sq. ft. to at least 20,000 sq. ft., pending (2) a complete revision of the zoning ordinance



**OFFICE IN THE SKY** for businessmen in a burry is this handsome g-place *Businessliner* executive plane built by Cessna Aircraft Company, Wichita, Kaussas,

# Executive suite for men on the way up

Getting where they want to go on time saves money for executives flying Cessna's popular Businessliner.

It's powered by a rugged 300-hp engine made by Barium's Jacobs Aircraft Engine Company, Pottstown, Pa., a 25-year veteran in the airplane business. Jacobs also turns out precision gears and hydraulic assemblies for jet fighters, and is working on a radically new convertiplane (winged helicopter) slated to reach a top speed of 185-190 mph.

3.2A



DOWN THE SUSQUEHANNA on route to James McWilliams Blue Line, Inc., N. Y., goes a new 20.000-barrel steel tanker barge made by Barium's Wiley Manufacturing Company, Port Deposit, Maryland.

Assignments like these more than justify the emphasis which Jacobs, like all Barium companies, places on top-flight engineering. For Barium believes you've got to have good design if you want good products.

Creative engineering is never in short supply at Barium, for its engineering resources are as varied as its products. Like to have this notable engineering talent focused on your problem? Write Barium Steel Corporation, 25 Broad St., New York 4, N. Y.



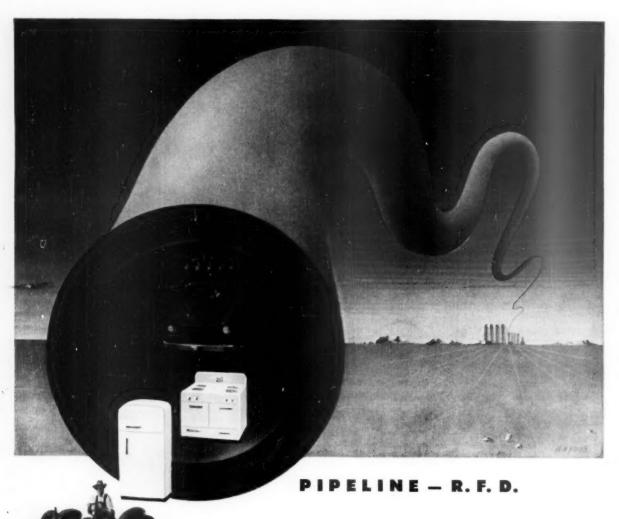
SHOULDERING THE LOAD at Oregon's new McNary Dam on the Columbia River 190 miles east of Portland is this husky 70 ton Whirley crane made by Barium's Clyde Iron Works, Duluth, Minnesota,



BAYONNE BOLT CORP . CENTRAL IRON AND STEEL COMPANY . CHESTER BLAST FURNACE INC . CLYDE IRON WORKS, INC . CLYDAED AND COMPANY . CAST COAST AERONAUTICS, INC . ERIE BOLT AND NUT COMPANY . GEOMETRIC STAMPING CO. . GLOBE FORGE INCOMPORATED . INDUSTRIAL FORCE & STEEL INC . JACOBS AIRCRAFT ENGINE CO . KERMATH MANUFACTURING CO . KERMATH LIMITED ICANADA) . PHOENIX BRIDGE CO . PHOENIX IRON & STEEL CO. WILLEY MANUFACTURING CO.



NEW MAGNESIUM WINGS for Lockheed's F-80 jet, now under service light test. Designed by Barinm's East Coast Aeronautics, Inc., Pelham Manor, N. Y., they have fewer parts, carry more fuel.



Millions of rural dwellers now enjoy all the comforts and advantages of modern gas appliances thanks to "LP" or liquid petroleum gas. This remarkable fuel is also used to power tractors, trucks, buses and to serve industry in countless ways.

Secret of this "packaged" fuel is its ability to be liquefied under pressure to 1/250th of its normal volume—facilitating storage and transportation. Handling such a highly volatile, pressurized liquid, however, creates many problems particularly where hose is concerned.

Hewitt-Robins developed the first synthetic LP gas hose which could with-

stand the high working pressures and rubber-rotting action of this petroleum product with complete safety.

Today, Hewitt-Robins supplies specialized hose for many uses in the LP gas industry, including a new easy-to-handle, long reel hose for bulk truck delivery available in lengths up to 150 feet.

Remember, whatever your hose need, Hewitt-Robins can meet it. And whether it's hose to handle liquids or gases . . . belt conveyor systems and machinery to handle or process materials in bulk, you will find that Hewitt-Robins can provide the most satisfactory answer to your problem.

# HEWITT ( ROBINS

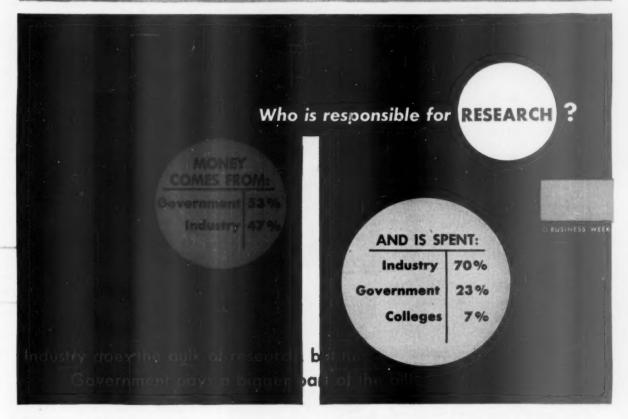
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## RESEARCH



# Big Changes Are in the Making

As the chart above shows, the federal government is still paying the bulk of the nation's research bill—even though industry does more than two-thirds of the work. But the gap is closing fast. Within two years, private industry will probably be spending more than the government.

There's another major change on the way, too. Decreases in federal budgets are being felt first in basic—rather than applied—research projects. Industry, on the other hand, is putting more and more emphasis on the basic sciences. Thus, in a few years, industry, instead of government or colleges, may be the major haven for the scientist interested in basic research—the type of research that seeks information for information's sake, rather than for practical applications.

• As Advised—This increase in basic research by industry heeds a warning expressed in the past few years by almost every major scientific group. These groups have warned that the U.S. is putting too great an emphasis on practical, dollar-value research and not enough on basic studies (BW—Jun.27

'53,p165). They point out that all practical applications are fathered by some basic research.

Until recently, industry listened to the scientists, expressed interest, but seemed content to let the government pay for most of the basic work. Only a few large companies had any sizable amount of money invested in nonapplied research. But now, the warnings of scientists and the government's cutback in research budgeting have apparently changed industry's mind.

Many of the new research laboratories springing up around the country will have large sections devoted to basic research. And existing labs are expanding their basic studies. General Electric Co., for instance, has announced that it will expand its basic research staff by 50% in the next few years. This means an increase from about 1,000 doing basic research to a staff of about 1,500—including 450 scientists, as against the present 270.

• College Shift—While industry is ex-

College Shift—While industry is expanding basic research, colleges are going the other way. They started accepting a few applied research and de-

velopment contracts early in World War II to help keep their scientific staffs and to bolster their sagging endowment funds. The trend is accelerating. As the government puts less and less emphasis on basic studies, the field strikes colleges as less and less rewarding.

A National Science Foundation survev of government research grants to colleges and other nonprofit institutions shows this trend vividly. In the fiscal year 1952, the government gave \$338million in research grants to nonprofit groups. Only one-fifth was for basic research. The dollar figure was 6% below that of the preceding year. In the same period, applied research grants were increased by 20% and development grants by 42%. The new emphasis on applied research and development in Washington will undoubtedly change the percentages more, and in the same direction, this year and next. • Crusader-This growing emphasis on applied science in colleges is one of many things that worry Dr. Alan T. Waterman, director of NSF, charged

with handling government support for basic research. Waterman doesn't feel



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#### "... big sections of most of these labs will be devoted to basic research ..."

CHANGES starts on p. 81

that colleges should be doing so many large applied projects. Many of these projects, he says, could be handled better by industry. Further, such projects often distract the schools from their main job of education.

Yet Waterman sympathizes with the schools' need for research projects and funds to help keep competent staffs. So he hopes to get further government support for NSF, and for its plan to put colleges back on the basic research path by giving them the lion's share of the government's remaining basic research work.

Some of the industries that are showing the growing interest in basic research are giving Dr. Waterman an assist. Many of them are increasing their grants to colleges, helping to support new college research groups such as the Institute of Silicate Research at Toledo University (BW-Jun.13'53, p120)—which is getting financial support from glass and chemical companies.

Industry's help to colleges will probably continue. There are several areas of research that seem to belong strictly to colleges—and these areas are particularly important to business. Among them are the fields of mathematics research for improved management techniques (BW—May30'53,p86), business research, and industrial economics. The colleges also hold a relative monopoly on the wide field of social research.

• Spending—While the growing interest right now is in basic research, industry hasn't dropped any of its applied or development work.

Many big companies—among them General Motors Corp., Westinghouse Electric Corp., Owens-Illinois Glass Co., Pittsburgh Plate Glass Co.—have announced plans to expand research facilities. Although big sections of most of these laboratories will be devoted to basic work, applied research and product development will still get the major part of the emphasis.

 Medicine—The government's biggest move in recent years outside the realms of military research has been in medicine—a field that is also getting increased attention from special industrial firms such as pharmaceutical manufacturers.

One of the most major interests of medical researchers today is the field of antibiotics. Researchers have found that as each new antibiotic is used in quantity, many microbes become immune to its effect. This has meant continued research to find still newer

antibiotics. A great part of this work has fallen to the industrial laboratories.

The government, on the other hand, has been carrying a big share of the research on certain diseases, such as cancer and polio, that have been killing increasing numbers in recent generations. And special studies, frequently financed by government grants, are looking into techniques for fighting high blood pressure and heart diseases.

Of the funds given private or nonprofit institutions by the government in 1952, NSF figures that \$36-million was ticketed for research in the medical sciences. Another \$16-million went to the biological sciences, which are closely related to the medical field.

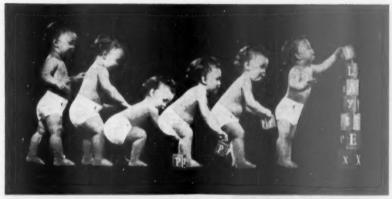
Most of the government's medical research studies, however, are carried out by the New Dept. of Health, Education & Welfare, which inherited the Public Health Service from the Federal Security Agency. Several large new research centers have been completed (BW-Aug.22'53,p64) and are now beginning their studies into the causes and cures of diseases.

In addition, much medical research is being done by the government in installations such as the Argonne Cancer Research Hospital, built under the supervision of the Atomic Energy Commission.



#### Prehistoric Air

The earth's atmosphere as it was 3-billion years ago can be duplicated in this apparatus made by Stanley L. Miller (above), graduate student in chemistry at the University of Chicago. Miller's atmosphere contains methane, ammonia, water, and hydrogen. Going a step further, he subjects it to 20,000 volts of electricity, creating amino acids—which speculation says may have combined in primordial seas to form life.





# Keeping America's Babies

#### "socially acceptable"\*

Babies are big business, and catering to America's "diaper set" has made International Latex Corporation, Playtex Park, Dover, Delaware, the leader in this industry. Today, Playtex has come to mean keeping babies "Socially Acceptable" with Playtex Drypers, panties, bibs, sheets, and other baby preparations. Playtex is no less a name of importance to the rest of the family. Mothers and daughters enjoy their "invisible" Playtex Girdles, the entire family uses Playtex foam pillows, and Dad,

the kids, and even Mother use the revolutionary new Playtex Home Hair Cutter.

International Latex is known as a modern, aggressive merchandising organization. In keeping with that reputation, they depend on U. S. F. & G. to solve specialized insurance problems and handle a variety of insurance coverages.

Whether your product is for children or adults, for the home or industry . . . there are U. S. F. & G. coverages to meet your needs.

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## Road Test without Roads

Standard of California tests fuels by running the back wheels of cars and trucks on a revolving drum. Engineers can simulate hills, temperatures, airstream.

Automotive companies generally rely on road tests to find out how well their new developments will work. But few companies are completely satisfied with the method. A thorough road test takes a long time; and control of individual factors to be tested is practically impossible.

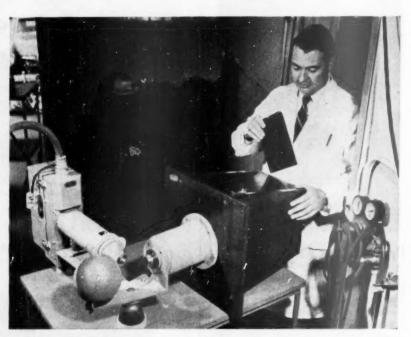
Timken-Detroit Axle Co. solved its problem not long ago by building an indoor testing ground for axles (BW—Jan.24'53,p116). Now Standard Oil Co. of California and Standard Oil Co. (Ind.) have taken up the idea. They've built indoor testing grounds for research on the reaction of different fuels on various parts of a car.

• The Road Moves—The Standard of California test grounds operated by California Research Corp.—a Standard subsidiary—is more complicated than either the Timken or the Stanolind setup. Timken tests only axles on its indoor proving ground; Stanolind tests only dismounted engines. Standard of California has designed its new research facilities for testing an entire truck

A car or truck is driven in the Standard of California laboratory so that its back wheels rest on a large drum. The drum is located in the basement; a small part of its surface projects into the test room. The front wheels of the vehicle are anchored to hold it still. Then it is started and run just as if it were on a highway. The huge drum, revolving under the back wheels, acts exactly like a road passing beneath the vehicle.

By applying a sort of braking action on the drum so it's harder for the wheels to turn, engineers can simulate hills or other road conditions. To make the indoor road tests even more realistic, the test room is housed in an insulated cell. It can be heated to 120F to simulate desert driving, or chilled to 40F below zero. A 6-ft. fan blows an airstream past the car.

• Quick and Easy—If the company's engineers wanted to find extremes in temperature and conditions in an actual road test, they would have to run their cars and trucks to the high Sierras and to the Mojave Desert. This



#### Action Photos of Air Particles

Minute particles in motion on the air can now be photographed for the first time with equipment developed by Stanford Research Institute at Palo Alto, Calif. Stanford hopes the new equipment will assist studies of fog, mist, and ice formations. No more "painty" odors. No more complaints from workers, customers, patients, tenants.

# Du Pont Announces

# NEW ODORLESS

**Color Conditioning Paints** 

Maintenance painting problems minimized in hospitals, schools, hotels, offices and other interior areas where paint odors cause inconvenience.

Now Du Pont Color Conditioning, the scientific maintenance painting plan that puts the right colors and the right paints in the right places, takes another big stride forward. Du Pont paint chemists have developed new formulas that make Du Pont Color Conditioning Paints odorless during application, with only a faint odor noticeable as the paint dries. This means that you can put Du Pont's painting plan to work without the annoyance often caused by paint odors.

#### OTHER DESIRABLE QUALITIES ADDED

In formulating these new paints, Du Pont has

gone beyond the substitution of odorleas solvents for regular solvents. Color Conditioning Paints have been completely re-formulated to provide easier brushing, quicker drying and better hiding. Light tints and white are more resistant to yellowing than ever before. And Color Conditioning Paints are formulated with alkyd resin—famous for insuring long-lasting good looks and protection.

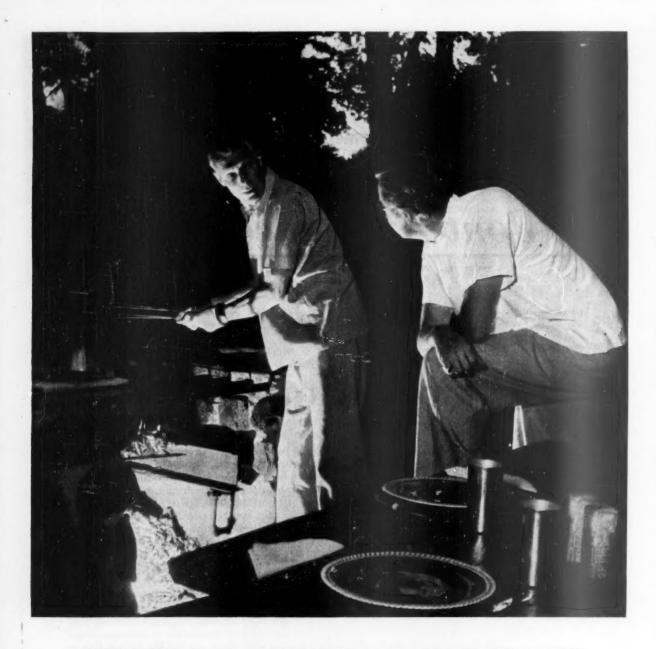
#### LOWER MAINTENANCE COSTS

Du Pont Color Conditioning costs no more than ordinary maintenance painting . . . less in the long run. Why not see for yourself how it can improve morale and production . . . reduce accident rates for you. Write for further information to E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Dept. BW39, Wilmington 98, Delaware.



Color Conditioning
PAINTS

NOW ODORLESS



#### "Why don't you talk to the people at Chase?"

#### A good question for Treasurers and others concerned with employee benefit plans

The guest was getting hungry and tired—tired of his host's monologue on the headaches a Treasurer inherits when the time comes to get going on an employee benefit plan.

"Why don't you do what I did?" he interrupted. "Why don't you talk to the people at Chase? Come on-let's eat that steak!"

For your information, that's just

what hundreds of corporation officials have done—talked to the people at Chase before adopting pension and deferred profit-sharing plans.

A group of specialists at Chaseknown collectively as the Pension Trust division—does the listening and (we might as well confess it now) a goodly share of the talking. They've got a lot to say because they've had a lot of practical experience in serving as trustee under benefit plans for big and little companies in many types of industry.

But your company has special problems. Of course. So have most companies. That's why Chase people always make a detailed study of "special problems" before proposing an employee benefit program.

Interested? Then look to the next page for a few suggestions on the first steps to be taken.



Facts for Treasurers and others concerned with employee benefit programs:

A note to the Pension Trust division, Chase National Bank, 11 Broad Street, New York 15, is a good way to start exploring the general subject of retirement programs.

If you're in a big hurry, call HAnover 2-6000, or better yet—stop by in person and go directly to the Pension Trust division's 2nd floor headquarters.

Either way, the Pension Trust specialists will go to work for you at once ... acquainting themselves with your particular situation . . . helping you develop step by step the plan best tailored to your needs and yet within the limits of your pocketbook.

Then, when you're ready, they'll talk Trusteeship. They'll show you how every dollar in your Plan will be handled, how they'll invest your funds and why.

Incidentally there are no obligations involved in "talking to the people at Chase." There are, however, many advantages both tangible and intangible.

Why not get in touch with the Chase if you're faced with developing an initial employee benefit program or revamping your present plan?

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would take a lot of time and trouble. As an example, the engineers point to one series of tests that, they figure, would have taken at least a week of actual driving at several widely separated sites. In the test room, the series took only 24 hours.

Test results such as horsepower, en-

gine speed, and engine temperature are recorded by electronic devices while the tests are being run. Controls to simulate hills and other operating conditions can be installed inside the vehicle, so that a technician making the test drive can vary the conditions without climbing out.

## What Causes Auto Injuries?

For 60 days, every accident in Guilford County, N. C. —fatal or not—will be probed exhaustively. Damage to car and occupants will be reported in detail.

In 1949, Sgt. Elmer C. Paul of the Indiana State Police began to keep a record of the number of people who died of skull fractures in automobile accidents that he investigated. Later, when moved to the records division, he found that police records did not show the cause of death from accidents. At the same time, he was puzzled as to why people should be killed or seriously hurt in what otherwise were minor accidents. So he started an investigation of his own.

This one-man investigation into the causes of death was soon expanded into a statewide project. Last week another state, North Carolina, got started on a similar project that grew out of Paul's work.

o Guilford County, N. C.—The heavily traveled highways of Guilford County, N. C., are used as living laboratories for crash investigators. The project is under the supervision of Hugh De Haven, director of Cornell University Medical Cellege's Crash Injury Research Project, which investigates both aviation and automotive accidents.

For 60 days, highway patrolmen and doctors will fill out exhaustive report forms listing in minute detail the damage done to both automobiles and human beings in every wreck that occurs on the highways of Guilford County. Dovetailed, their reports will show what part of the car inflicted each injury on its passengers.

Study of these reports, along with a 60-day sampling of five other North Carolina counties at peak traffic loads, will show the relations of car design to accident injuries. The hope is that the research will turn up information to help in the design of safer cars for the future.

After the work is completed in North Carolina, it will be continued by Cornell University in Maryland and Connecticut. The Indiana project is still in operation.

 A Guide—Automobile designers seem eager to build safer cars, but they don't want to spend millions of dollars scrapping old door locks or revamping steering columns until they know what they are doing. The project may give them the information they need. Every personal injury suffered in the accidents studied will be analyzed to learn (1) facts about the structural integrity of vehicles, and (2) injury patterns among the people hurt or killed in those vehicles.

In addition to getting information on car safety, the research group hopes to get other data to indicate what causes serious accidents.

The group hopes to answer such questions as: Does the direction of the crash (for instance, head-on vs. broad-side) influence the number and seriousness of injuries and fatalities? What is the survivable accident in terms of speed, force, and other factors? What effect does the speed have on the seriousness of the accident?

• Report—For each accident involving a personal injury, fatal or otherwise, a highway patrolman will fill out forms showing the make and type of vehicle and the circumstances of the accident. He'll also give a detailed report of how each part of the automobile reacted to the impact.

In addition, the patrolman will try to find out what part of the car caused cach separate bone break, cut, or bruise for each individual in the car. Nineteen parts of the car most likely to cause injury—such as the windshield glass, emergency hand brake, rear-view mirror, or steering column—are numbered on the report form. There is even a code number to indicate that one person was thrown against another.

Six human figures are shown on the form, each occupying a specific seat in the wrecked vehicle. The patrolman marks on these figures the location of injuries, and codes them with the number indicating what part of the car probably inflicted the damage.

• Doctor's Report—For every person injured in the accident, the attending physician fills out a parallel medical form showing the extent of injuries. He

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"Something caught my eye in the wastebasket...a magazine I had flipped through and discarded. It was turned up to an ad which promised a substan. tial increase in work output of stenographers and typists. When they talked about getting more work out of our girls, and giving them more comfort, well, I wanted to be shown.

They told how this gain could be accomplished simply by giving the girls posture-right Cosco chairs designed by seating engineers to reduce fatigue, increase efficiency.

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marks the location of the injuries on a similar set of human figures on his report form, using his more exact medical knowledge.

There's a special place for remarks of the physician, in which he can indicate, for instance, which injury probably was the cause of death in a fatal accident. In a nonfatal accident, he's requested to indicate the state of shock of the patient and possible disfigurement or disabilities.

Forms are collected by the State Board of Health and the State Highway Patrol and are turned over to the

Cornell University team.

· Parallel Project-Cornell became interested in Sgt. Paul's project because it had been doing special research into aircraft crash injury for several years.

This work-supported by the Army, Air Force, and Navy-had indicated, for example, that sheet metal that would give with an impact was safer in a crash than steel beams covered with foam rubber or other soft materials. John O. Moore, who will be administrator of the new project, points out that sponge rubber will flatten out completely under an impact well below the force necessary to be fatal. Thus, it will cushion a blow that might cause a minor injury, but not one that would

· Changes Ahead-Moore thinks that it may take about three years to complete the auto injury study, depending on the staff available to go over the results. However, Moore expects that some trends will show up in about a

For instance, suppose a study of the first 1,000 fatalities shows that onethird of the deaths were caused by crushed chests from steering posts and only one-fifth were due to occupants being thrown from the car when door locks failed to hold. This would mean that steering post changes were more imperative than improvement in door locks. Later information would be used to confirm or disprove the early trends.

Once the statistics are in final form, engineers will know where to correct the design of their cars. High up on the list of offenders, it's expected, will be hand brakes (often called "knee-busters" by highway patrolmen), "skullcracking control knobs" on instrument panels, glare shield attachments, divider posts between vent and roll-up windows, rear-view mirrors, heaters, horn rings, and arm rests.

The work Cornell has done on airplanes indicates that the new highway studies might have some very worthwhile results. Moore points out: "It is now much safer to dive an airplane head-on into the ground at 65 mph. (due to safety engineering on the plane) than to run into a stone wall in an automobile doing only 25.

#### **RESEARCH BRIEFS**

A cobalt radiation unit, which may be used for treatment of cancer, has been unveiled by radiologists at the Oak Ridge Institute of Nuclear Studies. Scientists point out that the unit doesn't offer a new method of treating cancer; cobalt radiation is very similar to X-rays and radium radiation, which have been used in cancer treatment for years. But the new development will make this type of treatment cheaper and more abundant, and may add to cancer research in other ways.

An infrared microscope has been developed by Perkin-Elmer Corp., Norwalk, Conn. With the new instrument, research and testing methods using infrared techniques (BW-Jul.5'52,p97) can be applied to minute samples of products such as natural or synthetic fibers, or to single crystals and bacterial cultures.

High-speed computation services are being offered to business by the Philadelphia Research Center of Burroughs Corp. (formerly Burroughs Adding Machine Co.). Burroughs has increased the programming staff on its laboratory digital computer. The company hopes it will be able to handle exploratory problems for businesses and scientific groups.

Qualities of "expanded" shale as a building material will be studied by the University of Toledo under a one-year research grant from the recently organized Expanded Shale Institute of Washington. Expanded shale is shale that has been puffed up in a heating process, making it a lightweight material. The Toledo research project is the first grant given to a college by the new institute.

Laboratory models used to simulate the flow of ocean currents, the movement of weather, and other natural phenomena were demonstrated and studied at a symposium held at Johns Hopkins University last week. The symposium hopes to solve some of the problems facing scientists working in these fields of research.

Research on disease is the main purpose of a new nonprofit organization, Health Research, Inc., set up by the New York State Health Dept. The new corporation was formed, officials say, to guarantee that funds contributed by persons or corporations for specific disease research would be assured of use in that field of study.



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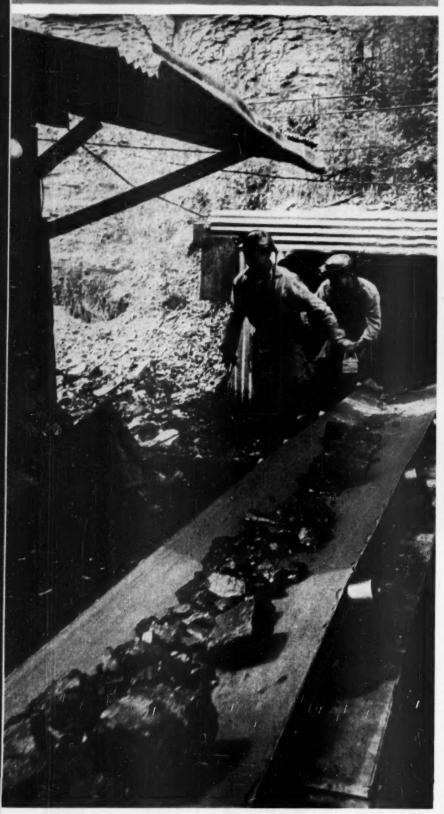
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## REGIONS



MACHINERY like this conveyor in the Mary Gale soft coal mine is rare in Clay and Leslie counties, Kentucky. Yet the product is competitive, plus.



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## **Two Counties**

In LESLIE and Clay counties, in Kentucky, they manage to dig about 3-million tons of soft coal a year. They do it the hard way, too. The mines are small and relatively little mechanized, compared with the huge diggings elsewhere; some even use ponies and donkeys to haul out the coal. What's worse, the mines are 35 mountainous miles from the railhead. All the coal has to be trucked to the tipples, which tacks an extra \$1.15 to \$1.35 per ton onto production costs.

The 3-million annual tons looks puny, compared with the national output that runs somewhere around 500million tons. It even looks smallish against the 100-million tons a year of comparable quality coal produced in



trucked 35 mi. from pit to railhead over rough roads. Fires like this are common. Haul adds about \$1.25 a ton to cost.

## Mine Coal the Hard Way (Story continues on page 92)

the United Mine Workers' District 8, which takes in Clay and Leslie counties. District 8, in coal language, is the rich area bounded by the Potomac river on the east, the Ohio and Kanawha on the north, by a straight line from Knoxville to Cincinnati on the west, and by the run-out of coal in Tennessee on the south.

The strange part of the story is that the Clay-Leslic production—meager in quantity, hobbled by location of the pits—is none the less a key factor in coal prices in District 8, and by reflection in the whole nation.

The 40-odd mines, mostly small and locally owned, as are the tipples, have consistently managed to shade the prices of their larger competitors else-

where. In coal, nearly everyone smokescreens his production costs, but you can figure that the Clay-Leslic coal generally goes to market with a 35¢ to 62¢ a ton advantage over that from elsewhere, despite the truck handicap.

The advantage comes in labor costs. Clay-Leslie miners and tipple workers are nonunion, ferociously so it appears on the surface. They work for an average \$1.50 an hour compared with the Mine Workers contract scale of \$18.25 a day, plus fringes including the 40¢-a-ton welfare royalty. The gimmick that attracts the local miner is that at his lower scale he can work a steady five-day week, earning an average \$60. The UMW man is lucky to work two days a week. UMW attempts at organiza-

tion have been repulsed bloodily, but are continuing.

The Clay-Leslie mines have another advantage. Being small, and with slight overhead, they don't need long-term contracts. This means they can jump into favorable spots, selling their coal at top prices.

at top prices.

It's this flexibility, plus the slight cost edge, that enables Clay-Leslie producers to pull a weight in the industry out of all proportion to their size. Even with their small production, they can step into special situations and shade their competitors. This tends to pull down the prices of the big fellows in District 8. And what happens in District 8 inevitably affects the whole nation's coal.



IN THE MINE, diggers-they work two to a "room"-shore up the roof of an area already cleared, preparatory to attacking a new coal face.



AT THE TIPPLE, truck is upended to run its contents through the screens. This tipple takes advantage of steep bank by railroad, has almost pure gravity feed.



CLAY DOBSON, a typical Leslie county miner,

# In Kentucky,

WHEN THE LUMBER industry withered away in southeastern Kentucky's remote Clay and Leslie counties, just about the whole population was left with no way to earn a living. Except moonshining, of course—but moonshining hardly provides a stable way of life for a sizable body of people.

In 1948, that need for jobs found itself going the same way as a nation-







supports a large family, is proud of his home. Coal is free, picked up along roads, where it spills from speeding trucks.

# Coal Mining Can Mean a Better Life

(Story starts on page 90)

wide need for coal, born of a work stoppage in the unionized mines. Clay and Leslie counties had always known that they had fine coal reserves, but the seams had lain too far from the railroads to make mining economically feasible. The 1948 shortage changed that. Operators found that panicky buyers were glad to pay prices at which they could operate. The mines were opened, with plenty of job-hungry local

labor and equally hungry miners from the closed workings elsewhere.

• Nonunion—In time, the big mines went back into operation. But by then, the Clay-Leslie owners had found that they could still be competitive, by running a nonunion operation. That's what they have been doing ever since, despite strenuous efforts at organization by John L. Lewis' United Mine Workers. In the process, a lot of heads

have been broken and one union organizer slain.

There is bitter dispute as to just how the mines in these two remote and relatively unimportant counties have managed to resist the massive power of the UMW.

 The Local View—The local people, owners and many miners, too, say it's this way. At the union contract scale, the Clay-Leslic mines would obviously



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# "... there's not enough level ground for a grave, much less a diamond ..."

COAL starts on p. 90

have to close down-because of extra transportation costs. That means no jobs at all, except around the stills. That in turn means to the miner: Starve or move away.

But the people in Clay and Leslie counties don't want to move away. Mostly they are of stock that has been in the area since their Scotch-Irish ancestors—a dozen families or so—settled there 150 years ago. They tend to own houses and a little land. Their lives may seem hard and even sordid to an outsider from a richer land. But it's their life, one they understand and don't want to change.

The unusual homogeneity of the people doesn't extend just to the miners. The owners are local men, too. They know the workers; most of them go down into the shafts every day to inspect. There's a kinship, or at least a nonhostility, between worker and boss that could never exist under the absentee ownership of big operations that marks much of the coal industry.

On top of that, the Clay-Leslie people argue, is the attraction of steady work. They have a virtually assured five days a week. Even at the \$1.50-an-hour rate that means around \$60 a week. Wives particularly like that a lot better than the UMW man's \$18.25 plus a day—which is unlikely to be earned more than twice a week at best.

• The Union Side—UMW, naturally enough, tells a wholly different story. Just for a starter, it mentions that the contract miner's \$18.25 day is a lot shorter than the Clay-Leslie \$12 day. The UMW man gets paid for an eight-hour portal-to-portal day, which includes a half-hour paid for lunch. The pay of his Clay-Leslie cousin, on the other hand, doesn't start until he reaches the coal face itself, his lunch is on his own time, and the pay clock stops ticking when he lays down his pick, not when he leaves the mine property. Furthermore, he gets no fringe benefits at all.

Incidentally, the Clay-Leslie miner averager about the same seven tons per man-day in his longer day that the UMW man in a more mechanized mine does in his shorter one. That cost factor is crased by the lower Clay-Leslie pay, and the fact that the Clay-Leslie mine has much less to pay per ton in overhead.

UMW, in continuing its side of the Clay-Leslie story, indignantly denies that the local miners and their families are not interested in unionization. It claims to have "sufficient assurances" of interest to justify a costly two-year organizing drive.

The union charges that "acts of violence against UMW members" have scared miners away from admitting the interest. The union has protested to Kentucky's Gov. Lawrence Wetherby that a "reign of terror" exists in which "UMW representatives and members have been shot, beaten, arrested, and their homes and union halls dynamited." The union asked the governor to investigate, charging that "it is useless to ask local officials to do anything."

• March of 500-UMW organizing efforts, started in 1949, reached a peak two years ago when some 500 miners from as far as 90 mi. away staged a "march" on the Leslie county mines. The Leslie operators still charge that the march was stirred up and backed by operators of unionized mines elsewhere in Kentucky.

In any case, dense picket lines were thrown around at least two mines at Hyden, the center of the county's mining. Some damage was done and some men were hurt, before Clay Bishop, a leader among the Leslie operators, secured an injunction against such picket-

Late last spring, a federal grand jury in Lexington indicted some 30 of the "invaders" on charges of being mixed up in the violence. Trial is set for November, but at least one of the men accused will not face the court. Charles Vermillion, an organizer, was shot and killed on Aug. 5 as he sat in his car on a lonely Leslie County road. Vermillion had been wounded earlier in another ambush.

• Not Too Harsh—Against this backdrop of menace and violence, the average miner lives a life that is not too tough by Kentucky mountain standards. Take the case of Clay Dobson (pictures, pages 92 and 93). Dobson owns his home and a couple of acres. He shares the house with his four small children, plus two grown daughters and their four children.

Entertainment for him and his like is scanty. Radio reception is poor, TV almost impossible. Movies are third rate; dances impossible because, as one young wife complained, "they always break up in fights." Baseball is popular but hampered because there's "not enough leve! ground for a grave, much less a diamond."

Unlike most mining areas, the two counties have almost no company stores or houses—which eliminates a frequent source of antiboss feeling. The mines let their workers have coal for fuel free except for the trucking. Mostly, the miners save haulage and just pick up the stuff at their doorsteps. That's because the trucks that speed the coal from the mine to tipple can be counted



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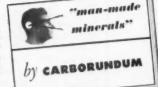
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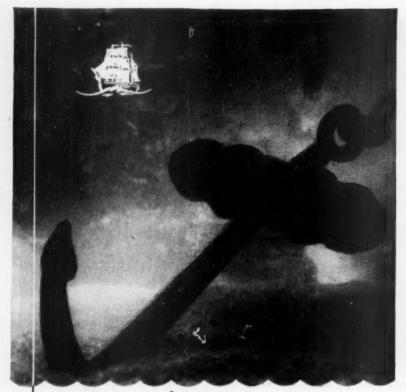
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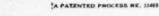
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#### "...a truck is usually driven by its owner . . ."

COAL starts on p. 90

to spill part of the load on every corner.

• The Truckers—That trucking is an industry in itself, satellite to the mines. The trucks are big 10-wheeled jobs, carrying 17 to 19 tons per load, three to four loads per day. The price varies according to distance and the condition of the side roads, averages about \$1.25 a ton.

The trucks—there are some 250 of them—are usually driven by their owners. For instance, Clay Dobson's son and near neighbor is an owner-driver. Quite apart from the usual difficulties of driving over tough mountain roads, the truckers face a peculiar problem of their own: fire. The trucks and their cargos have a bad habit of going up in smoke. The causes are many: overheating from an unnoticed flat tire on one of the many rear wheels, excessive backfiring because the driver is using compression as a brake.

Starting in the rear, the fires are well aflame before the driver notices any thing. By then it's too late to do anything. The driver usually ditches his truck and walks away unhurt; the load may burn for days. The highway from Hyden to the railroad at Manchester, in Clay County, is dotted with such burned-out hulks.

• Tight Little Economy—The truckers, like the miners and the operators, are a highly independent lot, without a semblance of organization among themselves. Yet collectively, the three groups, plus the tipple owners add up to a rather efficient little economy.

The operator, paying nonunion wages—and emphatically not paying the 40¢ a ton welfare royalty that UMW exacts—is able to deliver his coal to the tipple at between 15¢ and 22¢ less than the unionized mine price. And that despite having to pay the trucker. Part of his advantage often lies in being able to lease the coal land for a lower than usual royalty, because of its distance from the railroad.

At the tipple, the Clay-Leslie coal picks up a further price advantage, because the tipple worker is also on a nonunion wage scale. Thus when the tipple operator comes to sell the coal to the consumer, he can shave another 20¢ to 40¢ from the standard price.

That means that his sales agent has between 35¢ and 62¢ a ton to play with in underselling unionized competitors.

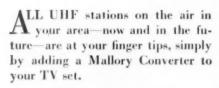
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Clay-Leslie mines, like most others,

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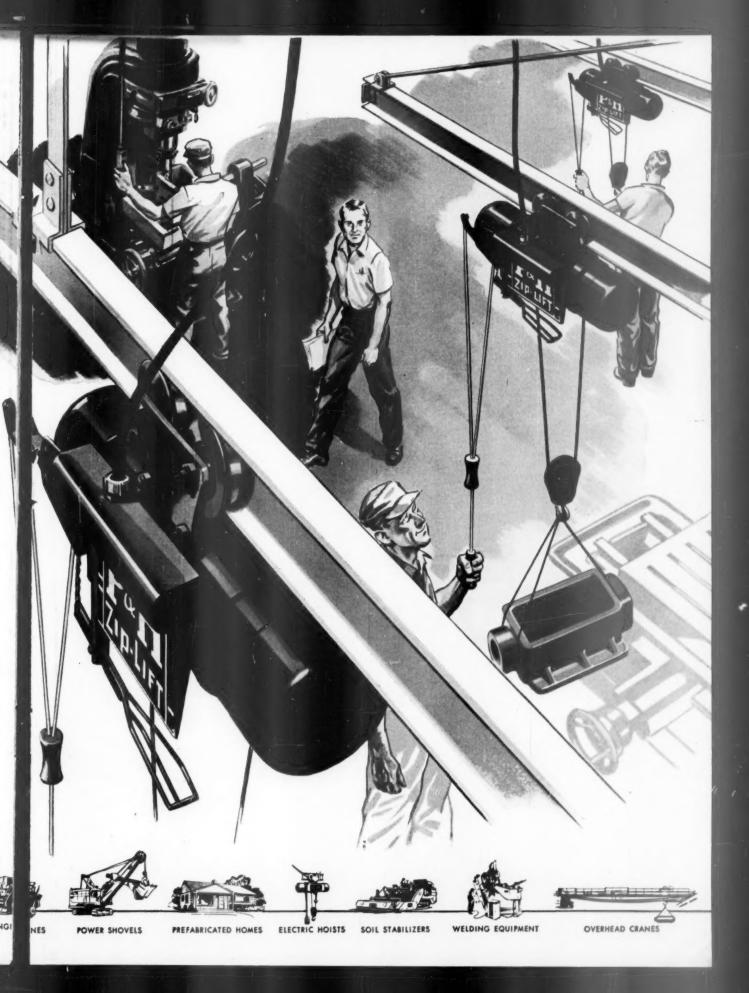






TRUCK CRANES

DIESEL ENG



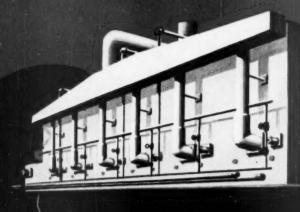
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# pad habit

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Salem-Brosius has the unfortunate habit of going to the extra trouble of engineering more quality into its furnaces than the application might indicate.
Unfortunate for Salem-Brosius, but fortunate for you. Prices being equal, you, as a customer, can hardly lose from an extra measure of good design and sturdy construction that assures you greater production, longer life, and easier operation.

Take the case of the controlledatmosphere small-parts hardening furnace shown here, for which Salem-Brosius is justifiably well-known. Users find that fast precise heating, complete atmosphere control, and rapid and high capacity materials handling mean better production. Why not take advantage of our bad habit of extra quality. Send us an inquiry for this or any other type of heat-treating furnace now.





Controlled-atmosphere small-parts hardening furnace segment of a Salem-Brosius harden, quench and draw line.

SALEM-BROSIUS,

INC.

Sales and Executive Offices: 248 Fourth Avenue, Pinsburgh 22, Pa.

"...a lot of big coal buyers like to buy less than their needs, and then pick up favorably priced odd lots..."

COAL starts on p. 90

deliver run-of-the-mine coal to the tipple. When this is screened, about 25% is the small (quarter inch) and least desirable size. The other and larger sizes are easily salable for good prices. But the tipple man has to sell all his grades at once. If the least desirable size can't be moved, it will pile up, creating an impossible storage problem.

Now, it is obvious that it is easier to find a niche in the vast coal-buying complex for a few hundred tons of quarterinch coal than it is to place thousands. It's a lot easier when you are perfectly able to shade the selling price and still make money. Especially since a lot of big coal buyers like to buy less than their needs, and then pick up favorably

priced odd lots.

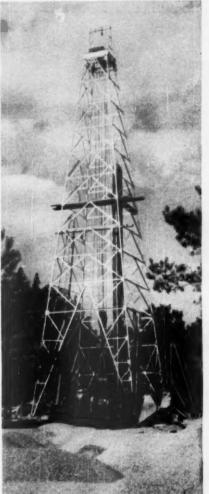
It is when a Clay-Leslie agent offers to fill in such a gap—or to dispose of his own surplus—below the main contract price that the counties' diminutive production begins to have its giant effect on the national price structure. Suppose a Clay-Leslie agent sells 1,000 tons of quarter-inch coal to a big buyer for \$7.40 a ton, shading the buyer's major contract by 10¢ a ton. The buyer is pretty sure that he can go back to the Clay-Leslie man for more of the same. That gives him a club over his regular supplier at the next contract talk. And it tends to depress the whole national price of coal, which is just what any good buyer wants to do.

• Quick Decisions—Small size gives the Clay-Leslie people another advantage: flexibility of decision. If the sales agent for one of the huge companies had a chance to win a contract by shaving a price—and the big fellows often do—he would have to go through channels, a whole maze of them. If the order were big enough, a directors' meeting might have to be called before a decision could be made. Not so the Clay-Leslie agent. One quick phone call to the tipple operator—perhaps another quicker one to the mine operator—and the answer is given. No channels, just one

boss talking to another.

The Clay-Leslie tipple owners have another shrewd way of improving their special position. The agents of unionized mines have no hesitation in slashing sharply at one another's business. But the agents of the 15 or 16 Clay-Leslie tipples stay strictly out of each other's paths. That way, with no shadow of formal organization, they still present a de facto united front for the exploitation of their special advantages.

# When you need was to the second



# you need

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Layne's world-wide experience in supplying complete water systems for industrials and municipalities may be of service to you. Every phase of water development is directed by qualified engineers... from exploratory surveys and tests to the drilling of wells and the installation of Layne Pumps. Beyond that, Layne offers its customers a continuous maintenance service.

Do your operations require thousands or millions of gallons of water per day? In either case, Layne will be glad to discuss your water supply and offer their recommendations.

For information on any phase of water development, modernization, maintenance or pump equipment, consult your nearest Layne Associate Company. Or write Layne & Bowler, Inc., Memphis 8, Tenn.



Layne Associate Companies Throughout the World

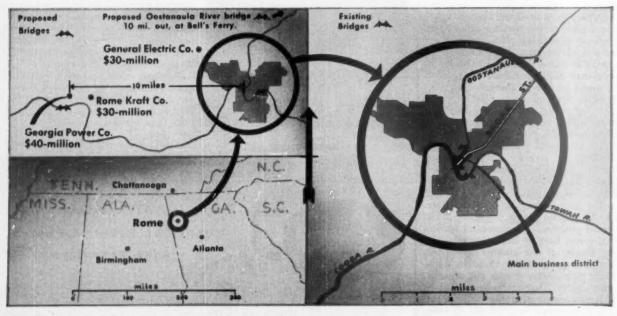


MAIN STEM of Rome, Ga., is bustling Broad Street. Along it you can see a small city adjusting as big industry moves in, bringing more cars, more people, more problems for city planners.



SITTERS still like to perch on chairs in front of the local hotel and ogle neighbors, but . . .

# Rome, Ga., Takes New Industry



LOCATION midway between Chattanooga, Tenn., and Atlanta (map, lower left) was a selling point when Rome leaders sought new plants. Power from the three rivers (map, right) will feed factories (map, top left).



FASTER TEMPO is in the cards with completion soon of three major plants costing \$100-million. By careful planning of transportation, water supply, and the like, town leaders hope to smooth the transition as . . .

# in Its Stride

(Story continues on page 104)



LABOR RELATIONS precedent for area has been set at Anchor Rome Mills, where every Tuesday workers hold confab with manager Loyd Rice on company progress.

Picture of Satisfaction



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# Rome Gets \$100-million Worth of New Plants

(Story starts on page 102)

Industrial expansion in a small city generally is a frightening thing for town planners. It rips apart the landscape and antiquates facilities. The influx of a horde of strangers connected with the new plants cuts up the delicate economic, cultural, and social fabric.

But that doesn't have to happen. · As the Romans Do-In a small green city in northwestern Georgia not long ago, a recently arrived employee of a new plant was working around his lawn on a quiet Sunday morning. Suddenly he realized he was the only person around. All his neighbors had gone to

church.

Recalling the incident, he said he hadn't been much of a churchgoer where he had come from, up north. But the next Sunday he was in church with his family. Now he's teaching a Sunday school class.

Incidents such as that have set the pattern of adjustment in Rome, Ga., as the city has experienced an industrial expansion. The face of Rome is changing this year with the erection of three plants costing a total of \$100million near a city of only 30,000 people. But the industrial expansion is conforming to Rome's own patterna 119-year-old pattern sensibly observed or sensibly disregarded as conditions warrant.

#### I. Enter Industry

To this river city, situated about 70 miles from and midway between Chattanooga, Tenn., and Atlanta, have come

these new plants:

· General Electric Co., with a \$30-million transformer factory three miles northwest of town. Eventually, it will employ about 1,800, mostly drawn from the existing labor supply in the area. Shipments are scheduled to begin next January.

· Rome Kraft Co., jointly owned by Mead Paper Corp. and Inland Container Corp., with a facility also costing \$30-million, about eight miles west of town on the Coosa River. It is expected to be in full swing producing paperboard liners for corrugated boxes by the middle of next year, and will employ 650, who will share a \$2-million annual payroll.

· Georgia Power Co., with its \$40-million Plant Hammond about two miles farther along the Coosa. When completed next year, it will have a 300,000-kw. capacity, equaled by only one other power plant in the state.

· Early Entrants-Industry isn't entirely new to Rome. Floyd County, of which it is the county seat, has more than 10,000 factory workers and several large plants: Pepperell Mfg. Co., cmploying about 3,000; Burlington Mills Corp., about 1,600; Anchor Rome Mills, about 1,000; Celanese Corp. of America, about 1,200; and Georgia's largest furniture producer, Fox Mfg.

Three years ago Rome's industrial expansion really started when the Dixie Corp. moved in. It now claims to be the South's largest independent aluminum extrusion plant and has expanded

eight times.

· Same Old Town?-In all, the Rome area has more than 100 enterprises ranging from a casket manufacturer to a producer of hand trucks. So Romans have had time to get used to industry since cotton ceased to be king. But have they got used to the idea of absorbing upwards of 3,000 new factory workers, one-third the present force?

Old-timers will tell you yes. Ask them how the city has changed and the answers strike a theme: "Lots of new faces. More activity all around. But come to think of it, Rome hasn't changed much. It's pretty much the same old town."

#### II. Breaking with the Past

Rome has changed considerably if you look back far enough-from an agricultural seat to a stove-manufacturing center, to a big-industry complex. But like the present evolution, all of the changes have come through a gradual process. Romans, they tell you in that corner of Georgia, are deliberate people. They reserve decisions until they have carefully weighed the future in terms of the past.

· With Tact-One of the foremost thoughts in the minds of the leaders of the new industry drive is to avoid hurting the feelings of the old folks. This is true even though many of these leaders are not native Romans.

Take Harold Clotfelter. He's been in Rome 20 years. He is chairman of the industrial committee of the Chamber of Commerce and the aim of his committee is to keep Rome progressive without changing the attitude and atmosphere of the old town.

Today you can stand at First Avenue at the western end of town and look up a free-flowing Broad Street that is believed to be the third-widest street in the entire South (three traffic lanes on each side, plus angle parking on both sides). But until last year, smack in the middle of the street and separated by a few blocks, were two large Confederate monuments. They were part of Rome's tradition, but they were also in the way of heavier traffic stemming from the new industries.

The "expansionists" didn't propose to tear down the monuments; only move them to the town cemetery already dotted with historic memorials. They persuaded the reluctant D.A.R. and United Daughters of the Confederacy to agree if a traffic survey recommended the change. It did, of course. So early this year the traffic-scarred monuments were refurbished and rededicated at the cemetery. The ladies now say that's where they should have been all along.

• Ready and Eager—Rome leaders have a knack of using the past as a springboard for changes. Industry first sprang up in the town after the Civil War, with stove manufacturing taking the lead. At one time it was the largest employer (approximately 2,000) and produced 110,000 stoves a year. But the industry didn't change with the times. The market for wood-burning ranges and pot-bellied stoves dwindled.

Chamber of Commerce leaders went to the largest stove manufacturer and suggested he modernize his plant and product. He said he was too old to start

over.

That was the cue for chamber people to start their program to lure other industry. They rounded up \$10,000 and did some hard selling—always winding up, if possible, by showing the prospect around Rome. Here's what they have to offer:

 Ample power from the Coosa River. This river is formed at Rome by the converging of the Oostanaula and Etowah. Once they periodically flooded the town. Now a dam across the Etowah and levees along the Coosa's banks has turned them into a power source.

• A labor reserve in Floyd County of approximately 4,000, many with industrial experience. This could be increased by a slackening at Lockheed Aircraft Corp.'s huge plant at Marietta, nearly 50 miles away. Approximately 1,000 of Lockheed's people already live in the Rome trading area.

Transportation facilities surprisingly heavy for a city of Rome's size: 16 freight and four passenger trains daily; 27 motor freight lines maintaining 11 terminals; 55 Greyhound buses through town each day.

And the expansion salesmen, if they



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Air Gage, 1940

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lege of active participation in the progress of precision which has brought the United States to outstanding leadership in this field.

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TOWN STATUE, Romulus and Remus, is relic that has survived streamlining.

choose, can also point out that Rome is making plans to handle the human side of industrial growth.

III. Grappling with Growth

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Romans went into their selling campaign with their eyes open to what an influx of new residents means. One example is Floyd County's \$1.5-million bond issue to finance improvements.

First they decided what they needed and how much it would cost. Then they arranged for disposal of the bonds at a 2.4% interest rate, contingent upon approval of the issue by the voters. This past July the bond issue won hands down.

• Smoothing Rough Spots-With money and planning, here's what Romans have done about the customary sore spots in industrial expansion:

Traffic. Each day 26,000 cars move through Rome. Removal of the two monuments in Broad Street was the first step to smooth this flow. Next will be construction of three new bridges across the river (see map, page 102). The Oostanaula span will cost \$150,000; the Coosa, \$200,000; the Etowah, \$550,000. These bridges will supplement the existing four and replace two old ferries, so that Rome can reroute traffic away from the heart of

The bond issue is making these improvements possible without a tax rate increase. County Board Chairman C. G. Kirkland figures that, with the bonds, the county can accomplish in 3½ years what ordinarily would require 20 years without a tax boost.

With the growth of traffic has come an increase in violations. This is straining Rome's 36 policemen and two detectives-but facilities to handle law enforcement have been provided. Court-



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plete electrical service job in the least time for the lowest cost.

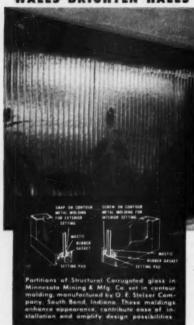
All these advantages are symbolized by the seal that marks his place of business and his projects. Look for this symbol next time you need electrical service.

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For new construction or the modernization of existing facilities, consider the many applications of rolled, figured and wired glass by Mississippi. Available in a wide variety of patterns and surface finishes wherever quality glass is sold.

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### "... planners have pitched in to find accommodations for newcomers..."

ROME starts on p. 102

house expansion to the tune of \$200,000, and revamping the jail at a cost of \$150,000 will be financed by proceeds from the bond issue.

Water. The existing city water works system was installed a dozen years ago, when daily usage was around 3-million gal. The system was designed to supply 6-million gal. daily, and everyone thought that would be sufficient for the next 50 years. Right now consumption is running about 5-million gal. a day.

So, a full year before completion of the new industrial program brings another upswing in consumption, Rome's planners have already sat down to figure out how and to what extent the water works and sewage systems will have to be enlarged.

Education. Rome's population has grown evenly and somewhat slowly relative to its industrial growth. In 1900 the city count was 14,035, and county population 33,113. In 1920, the figures were 14,150 and 39,841: in 1940, 26,282 and 56,141. The 1950 census tabulated 29,617 and 62,917.

But there has been a population shift in the county toward the city reflected in the schools. In 1939 the city schools had 5,805 students in 128 classrooms with 126 teachers. This year 6,453 students had 175 classrooms and 180 teachers. In the same period, county enrollment has dropped from 7,465 to 7,338. However, the county school system has added classrooms and teachers so an influx of new families in the suburbs probably could be absorbed without much strain.

Housing. Except for a shortage in boarding house rooms, housing is adequate and Rome's planners have pitched in to find accommodations for the newcomers. New construction is under way, and real estate prices have been kept within bounds. New houses are priced in two ranges: \$6,000-\$12,000, and \$10,000-\$20,000. Rentals are holding steady at \$45-\$50 monthly for one-bedroom units and a maximum of \$82.50 for larger quarters.

Health. Floyd County hospital will be enlarged with \$250,000 taken from proceeds of the bond issue.

Labor Relations. Rome's industry is predominantly nonunion. To get an idea of the situation, you have to look back. About six years ago, a labor dispute closed Anchor Rome Mills and the company was sold to a firm that planned to resell the equipment. At that point, Loyd H. Rice, a Roman

and experienced mill executive, persuaded Alabama Mills, Inc., of Birmingham, to buy Anchor Rome. Rice was installed as manager.

A good clue to Rice's approach to labor is the fact that every Tuesday morning at 9:00 a.m., 25 or 30 mill hands picked at random gather with Rice in the coffee shop. He sits down and opens the company records, tells how much they made or lost on the last contract, why he didn't take that job the other day, and discusses the company's operations in terms of steady jobs for the employees.

There has never been labor trouble under Rice and—possibly with an eye on the situation at Anchor Rome—workers in several neighboring plants have voted down union movements.

• Slow But Sure—As Romans see it, this all adds up to the fact that Rome can swallow big chunks of new industry without choking because they stop to chew before each bite.

Chamber of Commerce leaders say they are going to slow down for a while on their efforts to coax more industry into the area. They want to get caught up with what has happened to date, make sure things don't get out of hand

Broad Street symbolizes what has been going on. You walk along and it looks modern in every respect, with outlets of national chains (Ward's, Sears, Penney) in shiny new store fronts. Above the ground floor the facade hasn't changed much in years, and behind the glistening, neon-lighted fronts are the same old buildings.

#### **REGIONS BRIEFS**

Maryland's State Planning Commission has just published a new Inventory of Available Industrial Plants in the state. Some 226 plants comprising more than 430,000 sq. ft. are listed. Of these, 201 are in the Baltimore area; four, including one plant with more than 37,000 sq. ft., are in Cumberland. The commission's address: 100 Equitable Bldg., Baltimore 2, Md.

There's an exception to every generalization—including the one that taxes can only go one way: up. Kansas has just announced its 1953 state property tax. The new figure: \$1.51 per \$1,000 valuation, down 11¢ from last year's \$1.62.

Columbus, Ohio, which hasn't had any major additions to its skyline in 20 years, is about to get three at once. They include new 12-story and 16-story office buildings and a six-story addition to the existing eight-story Empire Bldg.



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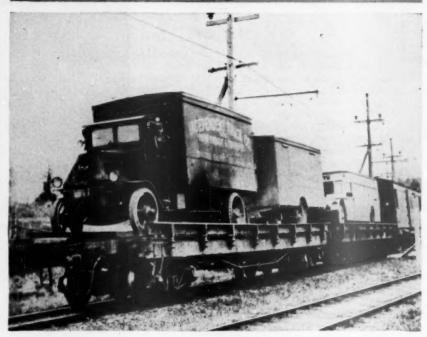
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### INDUSTRIES



1927 Pacific Northwest Traction Co., an electric interurban line between Bellingham and Mt. Vernon, Wash., piggybacked trucks on flatcars.

### Can Railroads and Truckers

Do truck trailers belong on railroad flatcars instead of highways? Is it trading with the enemy for a trucker to ferry his trailers by rail, or for a railroad to give this service? Who's the big gainer from piggyback hauling of trucks by rail?

If you can confidently answer these questions you're one in a million among railroaders and truckers. Both industries are divided against themselves. The lion and the lamb see the day coming when they'll have to lie down together, but they're both pretty skittish about it now.

Pressure for a hybrid truck-rail industry is getting strong, though. Traffic congestion, new taxes, new restrictions force truckers to look to the rails as a way out; loss of other business to trucks makes railroads more ready to take the half-loaf that trailer hauling represents.

• New Service—On Aug. 13, the Chicago & North Western Ry. inaugurated trailer-on-flatcar (TOFC) service daily between Chicago and Green Bay, Wis. The CNW becomes the latest recruit to piggyback, though only on a test basis. It is handling less-than-carload freight in its own truck trailers (picture), which pick up the stuff from the shipper, go on a

train ride, and then deliver the freight to the consignee.

The railroad is chiefly interested in speeding up l.c.l. freight and cutting the costs of handling. Officials say the Chicago-Green Bay service cuts 24 hours from conventional delivery time for l.c.l. freight, just about matching over-the-road truck time. CNW also claims a saving in equipment tied up by l.c.l. service—one flatcar and two trailers can do the work of four box-cars.

Freight is loaded in such a way that a tractor unit can be hooked up to a trailer and start right out on a round of deliveries. The drawback is that none of the freight can be loaded until the last shipment is on hand. But CNW executives talk enthusiastically about the way the test is going.

• Big Deal Afoot—Addition of another railroad to trials of TOFC is significant in itself, but even bigger developments are in the making.

Late in August, Rail-Trailer Co. got government approval for quick amortization on 70% of the \$21-million cost of buying 1,500 flatcars designed specifically for handling trailers. That's on top of a similar O.K. for 500 such cars to cost \$7-million.

Eugene F. Ryan, president of Rail-



1953 Chicago & North Western Ry. opened the latest trailer-on-flatcar service overnight between Chicago and Green Bay, Wis. Question: . . .

# Make Hay Together?

Trailer, says he hopes to sign a contract soon to rent cars and operate terminals for a railroad. Contracts for construction of the cars are waiting upon the closing of this deal.

• Thin Veil—Ryan isn't saying who'll manufacture the cars or what railroad he's dickering with. But anyone who can add two and two can take a stab at penetrating the mystery. Here are the clues:

• Rail-Trailer is a copyrighted name used by Ryan's company—and also by General Motors in describing its Rail-Highway Coordination Program. GM says its Electro Motive Division has developed a trailer transport car, its Styling Section is working on terminals for rail-trailer service.

• GM has been looking for big rail equipment business to take the place of Electro Motive's diesel locomotive manufacture. The diesel market is near saturation.

 GM says it has been working with "a large eastern railroad" in the Rail-Highway Coordination Program.

 The Rail-Trailer Co. has made revenue studies of TOFC operations for two "large eastern railroads"—the Pennsylvania (New York-Chicago) and the New York Central (Chicago-Detroit). • The Pennsylvania RR is reported eager-except for one traffic executive—to get TOFC service started all over the system.

### I. One Satisfied User

Since the first loading of trucks and trailers on interurban electric railroad flatcars in the early 1920s (picture, page 110), 15 U.S. roads and two Canadian lines have had TOFC service at one time or another. For most of them, the experiment was brief and unhappy: Traffic wasn't well balanced between two terminals, or it dwindled away; bandling costs were too high; lines ran into labor troubles.

Of the surviving piggyback operations, only three are more than a year old (five have been started in the U.S. and Canada during 1953) and only one is being pushed aggressively on a large scale. That is the Boston-New York Trailiner service of the New Haven RR.

• All in One—The New Haven's experience is worth a long look. It combines all the good and bad features of piggyback service. And it has the kind of happy ending that is luring other roads

Last year the New Haven hauled 34,000 truck trailers for a \$1.3-million

into the field.



It Might be Worth a Fortune to Know

### -IN ADVANCE!

One of these "twins" (could be any kind of part or material) is perfectly good—the other worthless. Why? Because one has a tiny crack that went unseen until final inspection and had to be scrapped. Could this happen in your plant?

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Civilization continues to advance because each succeeding generation builds on the progress of the old.

Plant life propagates its own and the best of the species survive.

But machine tools, once they have passed their peak of efficiency, can never "bloom again". Their only cure for old age and inefficiency is replacement.

If ancient, worn out hobbing and threading machines are affecting the profit column in your Annual Report, ask your Lees-Bradner representative to suggest a remedy. He is an expert on hobbing and threading and can make many suggestions for bringing these operations up to date in your production picture.



. . a more economical way of handling less-than-carload freight . . . "

INDUSTRIES starts on p. 110

gross. This year the total will be close to 50,000 trailers-well over 100 trailers a night. The New Haven figures it handles this business at a tidy profit, though some other railroaders are skeptical of its bookkeeping. Critics also contend that the road's rates are dangerously close to giving truck operators an informal kind of subsidy.

• Sixteen Years-The New Haven in-augurated TOFC service in December, 1937, as a more economical way of handling less-than-carload freight be-tween its North River pier in New York and its Boston terminal. The service was opened to common carrier truck lines in 1938 and to private and contract truckers when a tariff was published a few years later.

From the start, the road saw the importance of providing service as fast as the trucker could get himself by operating over the parallel highways. So trailer traffic has always been carried on fast

trains.

· Clearing the Way-The New Haven had typical problems of equipment and right of way. Ordinary flatcars are only long enough to carry a trailer and a half-and trailers aren't built to be bisected. But the New Haven had to stick to the 40-ft. length because of sharp curves and other factors. Its problem was to get enough cars for the growing business.

The equipment problem has been licked now. According to Railway Age, the New Haven has had 200 flatcars, each long enough for one trailer, and has 200 more under contract.

The new GM flatears and a type developed by Pullman-Standard accommodate two trailers and permit sideloading. As the New Haven has found, end-loading of cars, circus-style, can be a headache if you have a string of 10 or more cars to be filled.

The New Haven also had to clear all its bridge heights along the Boston-New York route. Many old bridges wouldn't clear a trailer mounted on a

· Labor-As might be expected, rail unions are all for piggyback hauling of truck trailers, and teamster unions are bitterly opposed. Teamster unions insist on maintaining the number of trucks moved over the roads, leaving only excess loads to go by rail.

Last summer, the teamsters picketed the New Haven's loading yards (BW-Aug.9'52,p100) and the road got an injunction against disruption of its service. The injunction was upheld by a



### NEXT TIME...ORDER SCOTTISSUE TOWELS!

- 1. They drink up water like an Airedale in August.
  - 2. They're strong even when soaking wet.
  - 3. They're so soft that many people use them as face cloths.
    - 4. They're clean and white of course.
    - 5. They're double-fold to dry double-quick.



EVER PLAY
"GUESS THE WEIGHT"?

ScotTissue Towels have an exceptionally high fibre content. This "bulk," plus generous size and double fold, makes a case of 3,750 ScotTissue Towels weigh 46 lbs.\* Some paper towels cost less for 3,750 but are 10 to 20 lbs. lighter\*—hence less drying power. Write for more facts. Scott Paper Company, Dept. BW-1, Chester, Pa.

Shipping weight

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TOWELS

Symbol of the right kind of washroom

\*'ScotTissue," Reg. U. S. Pat. Of.

# Now...a new and STRONGER MOLDING MATERIAL

...highest ever in high-impact phenolic!

Durez now offers you a phenolic plastic molding material having an impact or shock strength in foot-pounds per inch (Izod) ranging up to 27.

This compares favorably with some metals. It is several times as great as the impact strength of molding compounds in general use, the highest impact commercially practical in phenolics to date.

Fiberglas\*, the strengthening agent, is used in a manner that conserves the industrially valuable properties of Durez molding phenolics.

Known as Durez 16221, the new material invites consideration for a large variety of applications. It has excellent dimensional stability, a high modulus of elasticity, good electrical properties and resistance to water, heat, and chemicals. It will withstand far higher service temperatures than cellulose-filled materials.

Fiberglas\*- filled Durez 16221 is natural in color, comes in dry form, and is readily molded by standard compression methods. It produces parts or components having dependably uniform characteristics.

As specialists in phenolics for 32 years, we offer you the counsel of our field technical staff in investigating the profitable application of Durez 16221, which is now in commercial use.

\*Owens-Corning Fiberglas



### Want More Facts and Figures?

Send for folder DUREZ "16221 Natural"

DUREZ PLASTICS & CHEMICALS, INC.
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PHENOLIC PLASTICS THAT FIT THE JOB

"... yet the truckers have to keep two dangers in mind..."

INDUSTRIES starts on p. 110

higher court, which slapped a \$4,000 fine on the union.

Even so, the truck operators still consider piggyback service an outlet only for the overflow. They wait till the end of the day before allocating freight to the flatcars. Then they sometimes find themselves with only a fraction of a trailer load, or they have no drivers left to take the trailers to the railroad yard. So it's a lefthand business for truckers.

• Rates—The New Haven claims it can haul a trailer between New York and Boston—even at one trailer to a flatcar—cheaper than the trucker could send it over the road. To insure maximum use of flatcar space, however, the road sets a \$65 minimum charge that discourages the smaller, lighter trailers. New Haven's new cars are 40 ft. long, same as the older ones; trailers run mostly between 18 ft. and 35 ft.

#### II. Truckers in Middle

Truck operators are on the spot in their relations with their traditional rail, rivals. A trucker can see immediate advantages in consigning his trailers to flatcars:

• He works on a tight margin. Operating expenses take, on a national average, 94½ out of every dollar; only 5½ goes to overhead, management, and profit. Even a penny saved in costs gives him a softer cushion.

• Flatear service gives him a chance to make other savings, direct and indirect. He avoids expensive traffic jams, he can operate more moneymaking trailers with fewer tractor units, he can meet load peaks without laying out more money for men and overthe-road tractor units.

• Dodging Trouble—More important as a matter of public relations, the trucker who ships trailers by rail can avoid adding to the truck strain on highways. Far-seeing truckers fear that legislatures increasingly will retaliate with highway tolls, higher taxes, and weight restrictions if the volume of truck traffic continues to expand.

• On the Other Hand—Yet the truckers have to keep two dangers in mind when they encourage rail service:

(1) What will be the attitude of Dave Beck's Teamsters? Up to now, it has been hotly antagonistic. Truckers who use TOFC service have had to be careful not to lay off men; they can only forget to hire replacements for men who quit, retire, or die. Actually, though, they find there's little

# Bump that assures positive results

When fire strikes, seconds count ... your fire extinguishers must be the right type and function properly from the very start . . . failure means serious losses.

The growing popularity of the highly effective powdered dry chemical fire extinguishing agent may be hampered by a drawback...settling or packing can occur after a lapse of time. However, with C-O-TWO Dry Chemical Type Fire Extinguishers there's no chance of this happening.

The exclusive inverting and bumping design of C-O-TWO Dry Chemical Type Fire Extinguishers provides mechanical breakage of the dry chemical by shifting its position in the cylinder. This outstanding mechanical breakage, plus continuous inert gas pressured agitation or fluffing of the skillfully blended free flowing dry chemical, guarantee lasting, foolproof fire protection.

No other brand on the market today gives you this extra margin for positive results. Inverting and bump-

ing is only one of many unique design advantages that make C-O-TWO Dry Chemical Type Fire Extinguishers your best buy for killing flammable liquid and electrical fires, as well as surface fires involving ordinary combustible materials.

With C-O-TWO Dry Chemical Type Fire Extinguishers the heat-shielding dry chemical is a non-conducting, non-abrasive, non-toxic, finely pulverized powder compound ... blankets fire instantly. Sizes range all the way from 4 to 150 pounds capacity . . . all fully approved by the Underwriters' Laboratories, Inc., Factory Mutual Laboratories and Government Bureaus.

Act now for complete free information on these top quality, sure-acting fire extinguishers. Remember fire doesn't wait . . . get the facts today!



#### MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

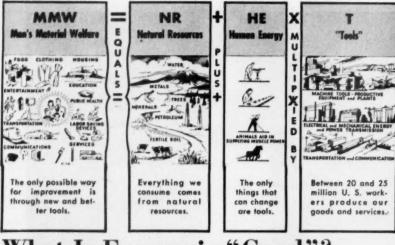
Squeez-Grip Carbon Dioxide Type Fire Extinguishers Dry Chemical Type Fire Extinguishers Built-In High Pressure and Low Pressure Carbon Dioxide Type Fire Extinguishing Systems Built-In Smoke and Heat Fire Detecting Systems

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### What Is Economic "Good"?

The social consciousness of the worker, politician, businessman, labor leader, clergyman, teacher and private citizen has probably never been more aroused than in recent years. All seek "the greatest good for the greatest number", yet often fail to agree on the definition of, and means for accomplishing, the goal.

One of the most clarifying approaches has resulted from adding the letter "s" to the word "good". Food, shelter and comfort consist of, or result from, goods. Thus, "the greatest goods for the greatest number" gives society a clear non-controversial definition of what it is seeking, at least materialistically. More importantly, it reveals the way to achieve the goal.

Man's material welfare (the goods and services available to him) is the result of his productivity. Productivity is based on three factors: 1) natural resources, whose form, place and condition are changed by expenditure of 2) human energy (both muscular and mental) and with the aid of 3) tools.

Man can't appreciably affect the quantity and quality of his material resources or his own energy. But, he can do a lot about the quantity and quality of his tools. Thus, he has the opportunity to acquire almost unlimited productivity and goods.

Tools come into being in a free society only when there is reward for the temporary self denial that people must practice in order to channel part of their earnings away from purchases that produce immediate comfort and pleasure, and into new tools of production.

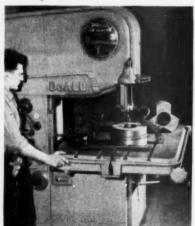
Obviously then, laws and rules designed to help achieve economic justice for all will defeat their own purpose if they discourage saving and investment in tools.

Among the most dramatic machine tools contributing to man's material welfare are the contour sawing ma-



MAKING ROUNDS square—a job best done by the DoALL band machine.

chines developed by The DoALL Company. These machines, using an endless saw band or other band tool, are used to cut all metals, asbestos, rock, glass, rubber, paper, stone, wood, cloth, plastics, in fact any material, to any shape. They are used in more different plants and industries than any other type of machine tool. The DoALL Company, Des Plaines, Illinois, through any of its 38 DoALL Stores will demonstrate these machines in any plant free of charge.



WRITE FOR WALL CHART "How Living Improves"—free of charge and without advertising matter.

THE DOALL COMPANY 254 N. Laurel Ave., Des Plaines, III. "... generally, the big truck lines are trying to stay in the middle . . ."

INDUSTRIES starts on p. 110

shrinkage in manpower requirementsthe slack is taken up by the work of driving trailers to and from the railroad sidings.

(2) Will the railroads give service that's as good as the trucker can get over the road all the way? Trucking is highly competitive. A company whose freight is delayed on a railroad can lose business fast to a rival.

Generally speaking, the big truck lines are trying to stay in the middle till they see which way these two cats -plus state legislatures-decide to jump.

### III. Railroads Drag Feet

To the railroads, TOFC service offers just one gain: business that they couldn't hope to get otherwise. This business almost has to come out of the trucking industry's share of the freight volume.

According to a General Motors study, based on Interstate Commerce Commission figures, intercity rail freight gained an average of 5.6% a year between 1946 and 1951 while highway carriers averaged a 62.5% increase per year. Highway volume rose from 64-billion ton-miles in 1946 to 133-billion ton-miles in 1951.

New factories are being built away from rail service, GM points out, and their freight business can be reached by railroads only in collaboration with

trucking lines.

· Cost Advantage-Railroads and truckers both are faced with constantly rising costs of operation. But with properly designed terminals and flatcars, the GM study says, railroads can operate at an advantage in TOFC service.

Comparing trailer-flatcar service with conventional less-than-carload boxcar service, GM cites anticipated revenue of \$39,996.84 per flatear each year compared with \$6,006 per boxcar in a year. That's for a New York to Chicago run with 100 loaded trailers on 50-car trains. The big savings of TOFC are in higher utilization of rolling stock and in terminal handling costs: \$16 per car per round trip for trailers on flatcars, \$112.59 for an l.c.l. boxcar at Chicago, and \$186.75 for the same car at New York.

• Skepticism-Yet railroaders tend to go slow on TOFC. They're afraid of letting the truckers get a foot in the door of their remaining freight business. Or else they're afraid to do anything that might conceivably help the

trucking business.



Photograph by Rubert Halland

# The Vanishing American

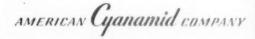
Little by little this picture of the American farmer is disappearing from our national scene. More and more our country's farmers are using mechanized equipment to produce food in greater quantity and of better quality than ever before.

Forty years ago, for example, the average farmer could produce only enough to feed eight people. Today, he can provide enough to feed fifteen people better—with less labor and at a lower cost.

Helping the farmer produce more and finer foods of all kinds is one of chemistry's important jobs. American Cyanamid gives him a helping hand through the development of improved fertilizers, insecticides, weed killers, defoliants, soil builders, feed supplements, veterinary products and other aids.

Here is an example of how chemistry and agriculture today work hand-in-hand to make more and better foods available and point the way toward the solution of many age-old problems of nutrition throughout the world.





30 ROCKEFELLER PLAZA, NEW YORK 20, N.Y.



# You Bet It's a WHITE!"

### Whites Make the Dirt Fly for Lindahl

Whites work in dust, mud and roughest of excavating conditions for Lindahl Bros., Chicago... from small residential basement to biggest sewer or highway construction job. This White is a Model WC-2264 six-wheeler tractor with a tandem dump semi-trailer with 16 yard water-level capacity, 18 yard end to end.



**TOUGH** hauling jobs like this one call for all the stamina and rugged construction you can get in a motor truck.

That's why the men on the job prefer Whites for all kinds of specialized transportation services where trucks mean big business, big payloads.

You may be on a big excavating job, hauling building materials or delivering furniture or groceries . . . whatever your business, you need White Specialized Design. You'll understand this preference for White if you investigate the money-saving, money-earning advantages of an investment in White . . . tailored to your business.

See your White Representative for the facts about White's new Payload Procurement Plan aimed to achieve the greatest efficiency and economy in your work.

THE WHITE MOTOR COMPANY
Cleveland 1, Ohio

## Comeback for Wisconsin Paper

An industry that was once all but given up for dead has doctored itself back to radiant health. Medicine: new products and new markets.

Take a good look at the Wisconsin paper industry today, and you'll have a tough time believing it was once all but written off as a dying venture.

Wisconsin paper was in bad trouble a few decades back. Competition from Canada and from the South was knocking the props out from under it. But the state made a comeback. Today, it ranks third among all states in paper and paperboard tonnage, first in dollar sales, first in number of mill employees.

• Down and Up-How was this feat accomplished? Wisconsin did it by turning to, and developing, markets for

new kinds of paper.

Back in the early 1900s, the Wisconsin paper industry was in good shape. It was producing a big share of the nation's newsprint and book paper requirements. Then came a blow. reciprocal trade agreement with Canada opened the U.S. to Canadian newsprint, duty-free. Wisconsin's mills couldn't compete with cheaper power, more abundant pulp-wood supplies. The state turned away from newsprint and started producing other kinds of coarse paper-principally kraft (brown) paper and butcher paper.

Then another challenge came up. In the late 1920s, the South's paper industry began expanding furiously. The new southern mills-with bigger, faster papermaking machines and abundant supplies of pine for pulpwood-all but swept Wisconsin's kraft and butcher

market away.

· Second Switch-So, again, Wisconsin turned to another kind of market. The state's mills slowed down on coarse, cheap paper and picked up on more expensive specialty and "fine" papers. They began turning out high-grade printing paper, special types of wrapping paper, blueprint paper-products that required quality rather than volume production.

The idea proved sound. Today, Wisconsin ranks first among all states in fine paper production, high on the list in specialty papers. Though it's third in paper and board tonnage, it's first in dollar sales-because the fine and specialty papers command a high price.

· Nekoosa-Edwards-Behind this story of the state are stories of individual mills fighting for life. Each mill found its own special solution to the problems of southern and Canadian competition.

Take Nekoosa-Edwards Paper Co. (Nepco for short). In the 1930s,

when competition from the South was getting really rough, Nepco's executives started doing some heavy thinking about the company's merchandising practices. They came up with this fundamental thesis:

"We can sell for price alone-but there the southern mills will beat us because their costs are lower; or we can strive for consumer acceptance and product recognition. That means convincing customers that it's to their advantage to buy Nepco brand papers."

 How-So Nepco's officers began casting about for ways to achieve brand acceptance. Technical advances in papermaking helped them in their search. Paper scientists had developed methods for bleaching sulphite paper (white paper of the butcher variety) into higher-grade material perfectly suitable for writing and office use, and for specialty papers used in protecting food. In 1936 Nepco started making watermarked bond paper in its Port Edwards (Wis.) mill.

The change came rapidly. In 1934 Nepco had turned out only 3,500 tons of so-called fine papers; in 1936 it made 8,000; in 1939 tonnage was up to 20,-500. Nepco's fine paper output has

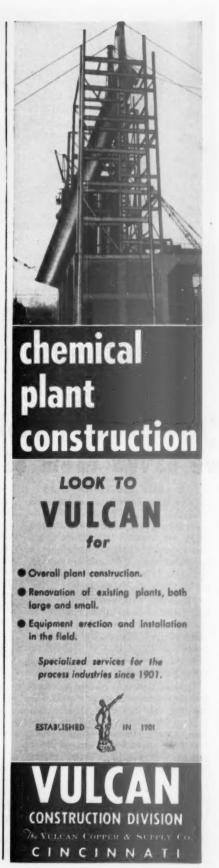
kept rising almost every year since. After World War II, Nepco took a look at some other markets. It turned to waxed paper, special laminated papers, oil-treated papers, envelope papers, industrial papers made to users' specifications. It also specialized in turning out colored papers.

• Sales-All this has produced a marked change in the make-up of Nepco's output, and a marked improvement in

its sales and earnings. Thus: In the years 1942 through 1952, the proportion of Nepco's fine and wrapping paper sales has practically reversed itself. In 1942, 37.2% of Nepco's tonnage was fine paper, 62.8% wrapping paper. In 1952, the percentages were 63.7% fine and 36.3% wrapping. Yet total tomage in 1952 was greater than in 1941-86,278 tons against 79,647 tons.

Effect on dollar sales was even more marked-simply because fine paper commands a higher price than wrapping paper. In 1942 Nepco's sales totaled \$9.8-million, 40% of it from fine paper. Ten years later, sales were \$23.6-million, two-thirds of it from fine

Profits have benefited, too. In 1942 Nepco had net earnings of \$645,000;





# "By checking their motor sizes, we saved them \$11.80 per fan!"

"We've been doing a good business with this fan and blower manufacturer for several years now. It started when we worked with their engineers on the motors needed for a new fan design. Tests showed our 1½ h.p. totally enclosed motors were correct for the duty.

"Recently I walked through their plant and noticed slight changes in these fans. The engineers said the pitch of the blades on the wheel had been altered to improve efficiency. When I asked if they had checked the motor, too, they said they hadn't.

"It was a simple matter to check motor output, and we promptly discovered that they only needed 1 h.p. motors for efficient operation. When we got to figuring comparative costs, we came up with a saving of \$11.80 on each motor. The total saving was thousands of dollars a year." Saving you money is your local Howell man's job. This report of an actual case shows the kind of help an original equipment manufacturer can expect from Howell. Your Howell man also has the answers to efficiency and replacement problems involving motors used in plant operations. His name is in the Yellow Pages of your phone book. Give him a call today.



Howell General Purpose Protected Motor

### HOWELL MOTORS

HOWELL BLECTRIC MOTORS CO., HOWELL, MICHIGAN Prochion-built motors for industry since 1915 "... dipped into a pile of new products that had been in the laboratory for years..."

PAPER starts on p. 119

through the succeeding three years, carnings held at or a little below the \$500,000 mark. Since 1946, the company has had but one year in which its net was below \$1-million; that was 1949, when it dropped to \$871,000 as paper sales generally hit a recession. High for this period was \$2.6-million in 1946. Since 1950 the net has been running around \$1.8-million.

• The Future-Vice-president Adam C. Remley expects sales this year to top \$26-million, or \$2-million more than in 1952. But president John E. Alexander, at a recent stockholders' meeting, warned that mounting costs are cutting into profits.

New developments, though, may hold Nepco's profits aloft. The company is looking into new possibilities—new variations of wood pulp. "fussier" papers to meet specific needs of customers.

This will simply continue the long process of upgrading—a process that today gives Nepco a net sales price per ton that's 3½ times what it was back in the early 1930s, when the company was essentially a coarse paper producer.

• Another Way—An entirely different route was followed by Thilmany Pulp & Paper Co., Kaukauna, Wis., in upgrading its product line—but the end results were just as successful.

Founded in 1883, Thilmany was and still is a kraft mill; but kraft today is merely the starting point for its product line, where once it was the end product. The company takes kraft paper and works it into an almost endless variety of specialty papers.

• Change—Thilmany began changing into its present form shortly after World War I. It began dropping some of its straight kraft products, substituting them with specialty items like asphalt laminated paper—two sheets of kraft with asphalt in between, used by industry largely for protecting machinery in transit.

The really big changes, though, didn't come until the early 1940s. Thilmany's management adopted a slogan: "If a paper product can be made in the South or is easy to make, it doesn't belong in Thilmany."

The company's executives dipped into a pile of new products that had been accumulating in Thilmany's laboratory for years. They came out with crinkled and crepe papers for wrapping irregularly shaped articles; waterproof

case liners to protect industrial products from moisture; laminated kraft covered with wax, to be used largely for fabrication into cartons and containers for food; garment bags for dry cleaners.

And they greatly expanded asphalt paper production, made specialities out of this specialty item. They colored it; creped it; reinforced it; gave it special treatments to prevent mold, resist fire, prevent corrosion, increase wet strength.

In the past five years Thilmany has accelerated this shift to specialities. It has now completely dropped standard wrappings and bags.

In place of the older products in Thilmany's catalog are such new developments as these:

• Paper coated with polyethylene, a moisture-resistant plastic. This paper is used largely by the armed services for wrapping ordnance.

 Polyethylene laminated and reinforced paper, used wherever there's a special need for protection against moisture and oil.

 Bright colored, decorated bags with oil- or grease-proof linings, used largely for packaging foods that have a high oil or grease content.

high oil or grease content.

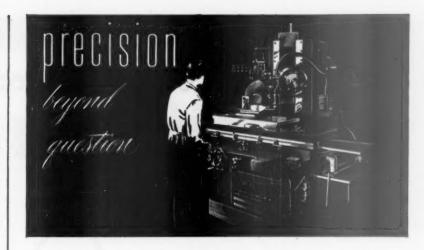
• Payoff—This kind of specialized manufacture and selling of paper specialties has paid off. Thilmany is a closed corporation, so does not issue public sales and earnings statements. But its officers say its sales are running above \$20-million a year, that its earnings "are in line with those for the industry as a whole." An educated guess would put its net at something close to \$14-million for each of the past three

One set of comparative figures does show graphically the change effected at Thilmany over the past 17 years. These figures are the tonnage and profit breakdowns for 1935 and 1952. Back in 1935, bags accounted for 16.5% of Thilmany's tonnage and one-third of its profit; in 1952 they represented 8% of the tonnage and 11% of the profit. Asphalt products represented 7% of the tonnage and 17.5% of the profit in 1935; they were 41.5% of the tonnage and 37% of the profit last year.

 Growing Fields—Today about half of Thilmany's paper production is converted in such operations as waxing, asphalting, polyethlene coating, printing and embossing, and manufacture into speciality bags.

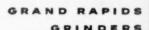
In addition, production of two of the company's paper machines goes into various kinds of secondary conversion. The balance of its output is sold to others for converting.

Thilmany's officers look for further expansion in the polyethylene field; besides this, its salesmen are constantly coming up with new ideas for paper specialties.



THE requirements exacted of surface grinding machines leave no room for variation. Precision and tolerance control must be built-in. Through the years Grand Rapids Grinders have demonstrated the highest quality and unquestioned dependability of performance. Upon this record they have been accorded world-wide acceptance. Here is precision beyond question.

GALLMEYER & LIVINGSTON CO. 310 Straight Ave., Grand Rapids, Mich.



MANUFACTURERS OF SURFACE GRINDERS, CUTTER





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# Quaker

### INDUSTRIAL HOSE

Toughness! Combined with flexibility and light weight! Whatever the job, whatever the liquid, gas or substance—Quaker has a hose that's exactly right for it! Always as light in weight as working conditions will permit, always easy to handle and no trouble to use! Engineered to withstand any "punishment" it's called on to take, Quaker hose resists high pressures, twisting, bending, deteriorating liquids and abrasion. For long wear, low upkeep, top value—insist on Quaker! Write for name of nearest distributor

Belting, Hose, Packing and Moulded Rubber of every construction for every need

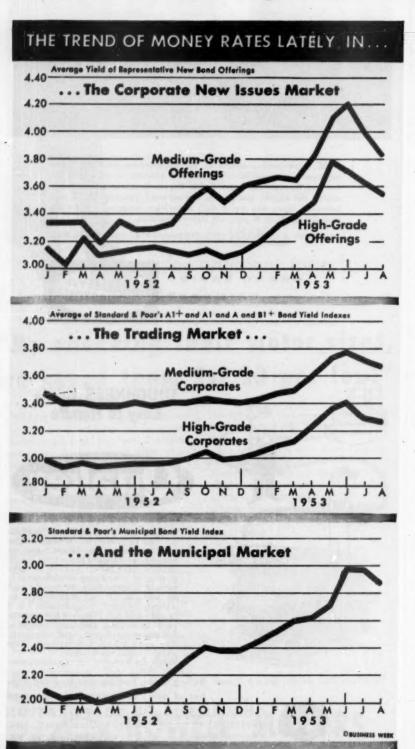


### QUAKER RUBBER CORPORATION DIVISION OF H. K. PORTER COMPANY, INC.

PHILADELPHIA 24, PA. Branches in Principal Cities

### FINANCE

## A Break for Long-term Borrowers



The costs of long-term borrowing are at their lowest levels in several months.

The charts on this page show how far they have dropped. And the trend, so encouraging to borrowers, is confirmed by what's happening as well as by statistics. Take the case of the hefty piece of financing that was consummated last week in Wall Street's new issues market by Southern Bell Telephone & Telegraph Co—Mother Bell's big subsidiary in the Deep South.

Last spring Southern Beil created quite a furor in the Street by turning down the best bid that underwriters made for the \$30-million 24-year debentures that the company planned to offer publicly. The company found this bid—a price of 101.309% of par for bonds bearing 34% interest—far too stiff for its AAA-rated issue, despite the fact that the money market was in a shaky state (BW-May16'53,p126).

Southern Bell promptly retired to the sidelines with its issue, pending a "further study of market conditions."

• Big Payoff—At the time, many experts thought the move was a mistake. But they were wrong. Southern Bell's fiscal gamble has paid off handsomely.

Just as the company had expected when it pulled out its offering, money rates continued to rise sharply for a time. But soon the trend reversed; and the rates kept on going down. So much so that Southern Bell decided the time was ripe for another try last week.

This time the best bid came from the same syndicate, headed by Halsey, Stuart & Co., that had made the top bid in the earlier round. But the syndicate had improved its terms decidedly: a price of 101.53% of par and, what's more important, a 3½% interest rate.

To the uninitiated, Southern Bell's gain may seem hardly worth all the time and trouble—a mere 22¢ improvement in the price of a \$1,000 bond, and a drop of ½ of 1% in the coupon rate. But even changes of a penny in selling price and of tiny fractions in interest mean plenty when you are trying to sell 30,000 \$1,000 bonds, and when you will be paying interest on them for as much as 24 years. Actually, the postponement of the issue saved Southern Bell close to \$1-million, which is nice money even in these billion-dollar days.

 Out-the-Window-What's more, the event has shown that the Halsey, Stuart group didn't cut its figures too fine in its latest bid. The sale to the public was an out-the-window affair,

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LINCOLN









despite the fact that the bonds offered investors a mere 3.62% yield, instead of the 3.75% they would have been offered under the terms of the abortive earlier bid.

(Incidentally, it's just as well for the syndicate that the issue sold so fast. Otherwise, they might have had trouble. To make sure that the bonds weren't over-priced for investors, the syndicate put them up for sale at a figure only \$5.40 above the cost of each \$1,000 bond. As a result, the group's gross commission was only \$162,000. That is just over ½ of 1% on the \$30,-459,000 that the syndicate laid on the line.)

• The Future—As for the months to come, plenty of money-market experts doubt that borrowing costs will continue to go down. They do not expect any extreme upward move, but they do think the current figure will be the low-water mark for second-half 1953.

These experts think it's an open guess how much the rates may go up. But they do say that it wouldn't be smart for any corporate or municipal official to figure that he could get to-day's rate for an offering that he might want to make later. As a matter of fact, it could be quite a bit higher. Here's the picture:

In recent months, the money market has lost a good deal of the tightness in supply that was noticeable last spring. But the change was by no means due entirely to improvement in fundamental factors. Indeed, a good part of the drop in the long-term borrowing rate can be attributed to the presence of a highly temporary favorable factor.

• Seasons—Since June, the demands by both corporations and municipalities for long-term money have sunk low—a condition that is normal in the summer months. That means that much of today's lower borrowing costs are what might be called "off-season rentals." This favorable factor will disappear as soon as borrowing returns to its normal seasonal pace.

Indeed, the seasonal pattern has already started to reappear on the scene.

For one thing, some recent new corporate offerings haven't been proving quite so easy to sell as earlier comparable issues. In the corporate trading market more "shopping around" for bonds has likewise been evidenced.

This "tightening up," moreover, has been even more noticeable in the municipal mart. Last week saw Standard & Poor's municipal bond yield index move up slightly for the second straight week. Previously, its trend had been steadily downward since early summer.

• Flood to Come—Most bond buyers are smart institutional investors. You can be sure that they haven't missed the evidence that new corporate and municipal issues will soon be flooding

into the market. And they are well aware that to market the mass of new offerings, the underwriters will have to see that their yields are more attractive than those now available.

The extent of corporate long-term borrowing between now and Christmas depends, of course, on the progress and prospects of business generally, and particularly of those companies that are mulling over new financing.

• Utilities—One thing does seem certain: The electric utilities, the heaviest postwar borrowers, will continue to do a lot of financing. New York's Irving Trust Co. estimates that the trade will have to dispose of another \$640-million of new issues by the end of the year.

Other utility companies will likewise be heavy sellers of new bonds. American Telephone & Telegraph Co. has already announced that it will soon offer stockholders \$625-million debentures. Pacific Telephone & Telegraph Co. is similarly busy at the moment getting a \$50-million 31-year debenture issue ready for public offering. And Tennessee Gas Transmission Co. is now getting ready to offer another \$20-million of new bonds.

Probably heavy, too, will be the volume of new financing flowing in from nonutility quarters. Household Finance Corp., for one, was slated to offer \$25-million of debentures this week. Expected to be soon ready for public offering, moreover, are \$150-million of new General Motors Acceptance Corp. 5-year debentures, \$35-million of Westinghouse Air Brake Co. bonds, and \$20-million Stauffer Chemical Co. debentures

The municipal market faces an even heavier load. In the first eight months this year it was called on to absorb nearly \$3.4-billion of new offerings, compared with less than \$3-billion in the same 1952 period. And no experts will be too surprised if the municipal volume for the whole of 1953 hits close to \$5-billion, topping last year's record \$4.4-billion.

Just in September, the schedule calls for \$125-million of New York State Thruway bonds, and \$125.1-million of public housing bonds issued by 31 local authorities in 18 states. On the heels of those will come a \$130-million state parkway authority, and \$100-million by New York State to finance housing projects.

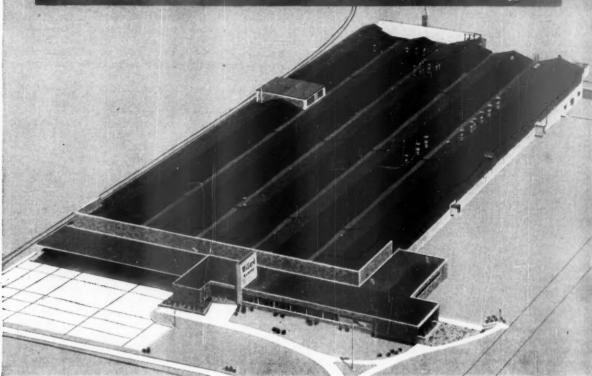
It's quite possible that the municipal market may be able to absorb handily all the issues that lie ahead. But many investors are betting that it can't. So is the Port of New York Authority, which this week postponed a \$20-million offering that it had scheduled for Sept. 16. Vice-chairman Donald V. Lowe said the action was taken "in view of present conditions in the municipal market."

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Another example from Simmons' Casebook



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SIMMONS GIVES USED MACHINE TOOLS A NEW LEASE ON LIFE

### They Can't Get Insurance

Street and sidewalk accident claims against towns are rising sharply. As a result, even communities like White Plains, N. Y., are being shunned vigorously by insurance companies.

White Plains—a well-heeled community of 50,000 people located 23 mi. north of New York City—has become the latest victim of the rising tide of claims against cities for damages sustained in sidewalk falls and street accidents.

Effective at 12:01 a.m. on the first day of this month, Globe Indemnity Co. canceled an insurance policy issued to the city in 1949 providing bodily injury and property damage liability coverage.

• Claims by the Dozen-Claims for damages occuring in accidents on city property have been rising sharply throughout the nation. In White Plains' particular case, the bulk of the trouble seemed to originate with sidewalks.

Thirty sidewalk injury claims totaling more than \$500,000 were filed against the city in a year—more than double the usual number. The potential liability in claims of this size was too much for Globe. So White Plains was relegated to the company of thousands of villages, towns, and cities that are having trouble getting insurance.

Globe refused to continue the insurance, even with an increase in the annual premium from \$21,000 to \$50,000. Luckily for White Plains, Mayor Edwin G. Michaelian and other city officials were able to line up new temporary coverage to take effect immediately.

Hartford Accident and Indemnity Co., through a binder, provided bodily injury and property damage insurance for all departments of the city for 30 days. The temporary insurance covers any liability arising in connection with sidewalks and streets, city parks, recreation fields, municipal buildings, city-operated parking lots. It also covers any accidents involving city vehicles, including fire department trucks and police prowl cars.

Before the 30 days are up, White Plains expects to get a new permanent liability policy to replace the one terminated by Globe.

The new policy, it's indicated, may be what is known as a restrospective type policy. This provides that the insured gets a premium refund if claims run lower than those indicated by experience. It shells out an extra premium payment if claims run higher.

• Worse Off-Actually, White Plains is lucky. Throughout Westchester County and Long Island, as well as in upstate New York and in other states across the nation, there are scores of municipalities that can't get insurance anywhere.

"It's all the result of the fact that we are living in a 'gimme age,'" says one authority. "You could call it the 'age of claims.' People get so many things for what they think is nothing—workmen's compensation, old age assistance, unemployment payments—that for the least scratch they file a claim against a city. It is the individual taxpayer, of course, and not the city, who pays all judgments in the end—in the form of municipal tax rates adjusted to cover the payments.

"Some lawyers abet the filing of claims," he adds. "They point out that the courts are there to award damages where proven. The city, they tell clients, is insured, and the insurance company is the one that pays off. As claims multiply, the time too often comes when the insurance company backs out."

• Ways Out—Some cities, like Freeport, Long Island, are still able to get insurance despite a rise in claims. But they must now pay a much larger liability coverage premium. A few years back, it paid an annual premium of only \$500, but now it pays \$20,000 a year for the same coverage.

If a town can't get insurance even for a high premium, it has one hope left. It may be able to get a policy from Lloyd's of London—provided the town is willing to pay fairly heavily.

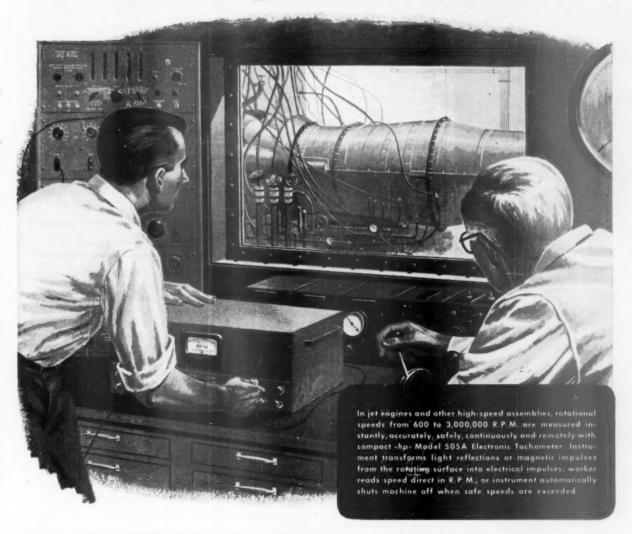
• Decisions—The sharp increase in

claims filed against cities, says White Plains Mayor Michaelian (who also is president of the New York State Conference of Mayors) is partly the result of two court decisions.

The first of these is the ruling made two years ago by the Court of Appeals, upsetting the old theory that a hole, gap, or other sidewalk or pavement defect had to measure at least 4 in. to justify payment of damages. The Appeals Court held that a variance of only an inch or two in surface level is enough for a case. Claims skyrocketed.

The second of the two decisions was a Court of Appeals ruling against city of Ossining, N. Y. The city was held liable for an auto crash blamed on the removal, without the city's knowing it, of an intersection stop sign by a group of neighborhood boys. This decision was a very hard one for

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municipalities. In street accidents involving motor vehicles, in which there are severe injuries or fatalities to several persons, claims—and judgments can easily run into six figures.

• Law Changes—Recognizing the widening breach between itself and insuring companies, the White Plains City Council early this year planned an ordinance that would outlaw a claim for bodily injury or property damage caused by any sidewalk or street defect that the city had not had at least 48 hours to repair. The measure was dropped, however, when similar legislation to be statewide in scope was introduced into the state legislature and passed by both houses. Unfortunately for White Plains, Gov. Thomas E. Dewey vetoed the legislation.

Many observers hold the governor was absolutely right in vetoing the law, even though it would have helped communities to meet the liability problem. These observers feel that neither the state, nor its towns and cities, have any right to legislate away their responsibility in providing safe sidewalks, streets, city structures, and services for

the public.

Now White Plains is pushing a modified version of the ordinance it planned early this year, details of which will be discussed at a hearing next month.

• Study-Meantime, the New York State Conference of Mayors has been aroused to action, and has named a pilot committee headed by Professor Martin H. Weyzauch, of the Brooklyn Law School, to study the situation and suggest recommendations. It appears likely that Gov. Dewey will be asked to appoint a commission to investigate the insurance matter, with a view toward taking steps to end the crisis. Cities throughout the rest of the country, also facing rising damage claim costs, can be expected to watch New York's decisions closely.

### Waco Banks Decide To Go Separate Ways

Two Waco banks have taken the lead toward ending the "affiliate" arrangement that the Texas Banking Board says is illegal (BW-Jan.3'53, p88).

First National Bank has advised the board that it is ending an affiliation with Bellmead State Bank of Waco. J. M. Falkner, State Banking commissioner, says the action is "satisfactory."

On a complaint that the affiliate system used in several Texas cities violates the state's ban on branch banking, the board last year conducted an investigation of banks in Waco and Dallas.

The result: An order to eliminate control of one bank by another through stock control ownership or by use of the same employees or directors.

The Waco banks are the first to

announce compliance.

Others called to the carpet in the board's investigation were given until Sept. 1 to advise what steps are being taken to end affiliation. Thus far, there has been no indication what they plan to do.

Commissioner Falkner, incidentally, has been directed to look into bank affiliations outside Waco and Dallas, and report his findings to the board by Jan. 1.

After that, the board hints, any banks violating the "affiliation" law may be subject to antitrust action.

#### FINANCE BRIEFS

Carrier Corp., working up to \$10-million of plant expansion, will sell 170,000 shares of \$50 par value convertible preferred stock. The shares will be offered first to common holders. Subscription rights expire Oct. 6. The \$8.5-million financing is being handled by a syndicate headed by Harriman Ripley & Co. and Hemphill, Noyes & Co.

Rumor has it again that Lehigh Coal & Navigation Co. is selling its Lehigh & Susquehanna RR-an independent line leased by Central RR of New Jersey.

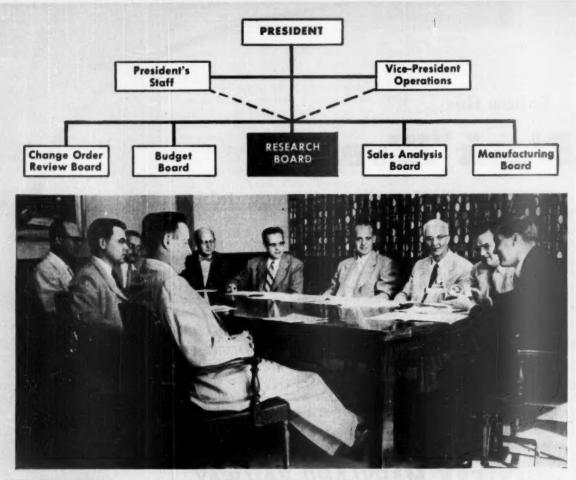
Power switch: Pennsylvania Salt Mfg, Co. is selling the domestic power distribution and transmisison facilities of Natrona Light & Power Co., a subsidiary, to West Penn Power Co. When the \$500,000 deal is completed, West Penn will put power into the lines from its own generators. Pennsalt will use Natrona Light's power output for chemical manufacturing work in its own nearby plant.

Real estate switch: While the trend in many industries has been to sell and lease back plant or office buildings, thus freeing cash to run the business, W. R. Grace & Có. has taken an opposite tack. The company has bought the New York Cotton Exchange building for \$3-million; it will occupy less than half the space, rent out the rest.

Rail union leaders are battling foreclosure by the Reconstruction Finance Corp. on a \$3-million loan made to the New York, Ontario & Western RR for dieselization. They figure there may be layoffs if the government seizes the locomotives, of which there are 30 altogether. The road has been in bankruptcy since 1937.



### MANAGEMENT



RESEARCH BOARD is focal point in planning. Charles Percy, Bell & Howell president (right), feels system solves problems of ...

# How to Coordinate Executives

On July 31 at the National Audio-Visual Assn. convention in Chicago, Bell & Howell Co. unveiled a new product—a 16 mm. version of Cinema-Scope, the wide angle screen system with stereophonic sound developed for the movie industry by Twentieth Century-Fox (BW-Aug.15'53,p55).

Introduction of the new product puts Bell & Howell, which already claims to be the largest manufacturer of motion picture equipment, another step ahead in its field.

For Bell & Howell's top management, the new product does something else, too. It points up the effectiveness of its executive coordination scheme. This system strives to bring about a close-knit operation through advisory

boards that tap the specialized knowledge of top management people (chart, above).

#### I. The Structure

Here's how the boards work:

Top division managers and vicepresidents sit on four interdivisional boards. They meet weekly or biweekly. A fifth manufacturing board is made up of manufacturing division executives only.

• Key Group-Major planning boardand heart of the management program at B&H-is the research board. All ideas for new projects are first submitted to it. This board then guides its choices on through to completion. Sitting on the research board are B&H's president, 33-year-old Charles H. Percy; W. E. Roberts, vice-president in charge of operations, and his assistant; the engineering vice-president and his assistant; the secretary-treasurer; the director of market research and advertising; the merchandising and manufacturing vice-presidents; and the vice-president of the international division.

Thus, all the major operating departments contribute their viewpoints on ideas proposed for new products or future developments. They participate in all discussions and decisions on future plans.

Sales, engineering, manufacturing, and financing problems all get a thorough airing some time before a project §

### **BUSINESS IN MOTION**

# To our Colleagues in American Business ...

A national enterprise of long experience, such as Revere, inevitably accumulates a great deal of information, not only about its own products, but about other companies, their products, facilities and skills. Some of this data naturally is confidential, and is respected as such, but often it can be made available, with mutual advantage. Here are some examples.

• A Revere customer asked for advice about expanding copper tube. We recommended a change in size, and referred the company to a firm we knew had both

the necessary equipment, and the know-how. Result: business for the three of us.

• A manufacturer had on his drawing boards a new product, a milk cooler. Having benefited by our collaboration in the past, he brought us into the picture, so that we were able to work closely with his engineers. Our knowledge of baffling led to a suggestion that increased efficiency by 30%, used no more material, and also eliminated soldering.

• When a product is in a highly competitive field, cost reduction can have a vital influence on sales and profits. The maker of a baby stroller asked Revere what could be done to cut costs of aluminum tube without affecting quality of the stroller. Changes in alloy and gauge were recommended, and proved effective in every way. Revere now sells this manufacturer less aluminum per stroller, but has gained the respect and orders of a growing company.

• Tuning condensers for radios usually have aluminum plates, stamped from strip that has to be held to close standards as to gauge and flatness. A con-

denser firm thought well enough of Revere to place a trial 500-pound order. Both the Sales Department and the Technical Advisory Service followed through, ascertaining the individual requirements of the company, and interpreting them in the light of mill techniques and previous experience in this field. The trial shipment was so satisfactory that a large production order was placed.

• A most competent manufacturer told Revere he had been working for two years on an aluminum brazing

> problem. It wasn't an easy problem to solve, as we found out when we dug into it, but we licked it in three weeks. After all, Revere began making aluminum mill products in 1922, and through all the years since has been adding to its knowledge of the metal.

> A fabricator took a contract to make soap dishes, a new kind of work to him. He had been told by his customer that each dish should be annealed twice.

The Technical Advisory Service worked closely with him, set up specifications for temper and gauge, and stimulated new thinking on tool design. On two dishes, annealing was eliminated; on another, only one anneal is required.

These are but a few cases from the Revere files. Many other suppliers of materials of all kinds can match them. You may not buy metals, but such things as wood, paint, felt, chemicals, cement; no matter. Whatever you purchase, it will pay you well to take advantage of the special knowledge and skill of the firms with which your purchasing department is in contact.



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### "... second in importance to the research board is the budget board ..."

MANAGEMENT starts on p. 130

is undertaken, instead of later on in its development.

• Follow-through—Though the board participates in making decisions, final responsibility still rests with Percy or Roberts. This overcomes the committee management danger of failure to pinpoint responsibility at the top.

Once given the green light, projects go back to the operating divisions. But the board continues to keep track of progress, consults at various stages and acts as liaison between departments. That way, engineering design and manufacturing can be coordinated throughout, manufacturing problems anticipated and solved before final designs are completed. Ideas of the market research and sales departments on features needed to sell the product and on price and markets can be incorporated as the project develops.

• Budget—Second in importance to the research board is the budget board. It's made up by Percy and Roberts, plus the manufacturing vice-president, secretary-treasurer, comptroller, and assistant comptroller. Its job is to determine over-all divisional budgets, subject to approval of the president, based on estimates of operating expenses and anticipated sales figures from division heads.

In close touch with the research board's plans and ideas the budget board can readjust budgets where necessary to provide funds for new developments. Likewise, it can influence research board thinking on which undertakings should be pushed. Close liaison between financing and project planning on a week-to-week basis is assured.

• Product Changes—Once a new product is past the planning stage—or when it's necessary to revamp existing products—all proposed changes are routed through the product change review board. This third board includes the assistant vice-president of engineering, the manufacturing vice-president, the chief production engineer, the quality control manager, and other manufacturing executives.

• Sales Analysis—When a product hits the market, the sales analysis board takes over. It is under the direct supervision of Roberts. The board makes weekly sales analyses on each B&H product, checks sales against budget estimates, shipments, back orders, and inventories. Representatives of merchandising, manufacturing, production control, and purchases, plus the secretary-treasurer and comptroller sit in on the sessions.

• Manufacturing—Finally, the manufacturing board operates in much the same way, but is confined within the manufacturing division. It tries to maintain close integration between the various manufacturing subdivisions, such as lens and case manufacturing, quality control, and production engineering.

• Merits—B&H management finds that this board system acts as a catalyst on its various divisions. It becomes a device for overcoming the specialization that tends to divorce the outlook of operating experts in engineering from those of experts on sales or manufacturing. But it doesn't take major planning chores out of the operating people's hands.

The boards, by design, don't become substitutes for the regular line and staff organization. Each division head is responsible for meeting division objectives. The boards are superimposed on the operating organization as a device to make possible wider interdivisional participation by top executives.

### II. The Operation

It was just this week-in, week-out coordination, the company thinks, that enabled B&H to swing into action on the CinemaScope development and produce a final model for demonstration at the audio-visual convention only six weeks after top management reached its decision to undertake the project. Normally, such a new product development—from the original idea through engineering and design to tooling and manufacturing—could take a year or even longer.

• Fast Start—B&H, as a big supplier of cameras and other photographic equipment to the movie industry, had been watching Hollywood's experiments with three-dimensional motion pictures closely (BW–Jul.25'53,p60).

On June 17, B&H's engineering vice-president, C. E. Phillimore, visited Twentieth Century-Fox and saw Fox's CinemaScope. Two days later, he reported to the research board on the system Fox had developed. He pointed out that, to get stereophonic sound, Fox was using four magnetic tracks on the film instead of the conventional single track. It had managed to squeeze the extra three tracks on 35 mm. film by reducing the size of the perforations on the film's edge that hold it on the projector. Bell & Howell was particularly interested in this development since it makes perforating machines for the motion picture industry.

On the basis of Phillimore's report, the research board decided at once to go all out on a wide-screen system patterned after CinemaScope, try to make



# He measures millionth-inch mountains -to make GM cars a better buy

THERE are many reasons why you get more for your money in any General Motors car you buy — whether it be a Chevrolet, Pontiac, Oldsmobile, Buick or Cadillac.

Take engines, for example. Long life depends upon perfect matching of their moving parts. Yet smooth as these highly machined surfaces may feel, they are actually ridged with microscopic peaks and valleys as infinitesimal as one-millionth of an inch.

So here you see how GM insures a more perfect match. This production man is using a highprecision electronic instrument called a Surfagage®, developed by GM Research to measure the exact degree of roughness in crankshafts, pistons, bearings, cylinder walls and other wearing surfaces.

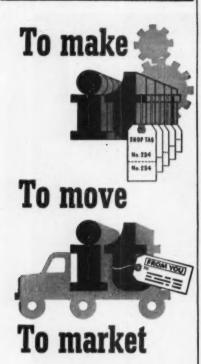
With this unique instrument laboratoryaccurate measurements of surface roughness can be made instantly, right on the production line. It gives engineers in every GM production or assembly plant a split-hair check on parts' surfaces, insuring perfect matching.

In the making of every GM car there are literally hundreds of super-precision tests like this on transmissions, bodies and frames, as well as engines, which insure longer wear and smoother performance. That is one of the big reasons why the key to a General Motors car is your key to greater value.

# GENERAL MOTORS









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it the industry standard for both 35 mm. and 16 mm. cameras and projectors.

Once this board decision was

reached, Percy authorized the company to develop the new lenses required for filming and projecting the bigger pic-ture. Negotiations with Fox were begun to get the rights to use the name CinemaScope for 16 mm. projectors and cameras.

• Fast Finish-The optical design groups went to work to design in record time a 35 mm. projector lens for movie theaters and a 16 mm. lens that can be used in both cameras and projectors. The electronic designers developed stereosound for Bell & Howell Filmosound magnetic recording projectors.

As soon as working models were available from engineering, sales department groups set out to take demonstration pictures on the new camera. As fast as engineering designs were complete, manufacturing division production engineers went to work on tooling and production design. Cost accounting began to figure costs as estimates came in from the engineering division.

By July 29, pilot models of the 16 mm. adaption were ready to show to educational and industrial motion picture makers and users at the audiovisual convention. Percy and his associates are convinced that without the close integration and understanding developed through the coordinating boards such fast work could never have been possible. Of course, all companies look for that kind of coordination and top management often assumes it exists. But often it rests on chance rather than formal setups.

• Second Case-At B&H that isn't the case. Take another example. This year the company is bringing out a new lowpriced 8 mm. movie camera. The idea for the product emerged from the surveys conducted by market researchers. They showed that the two most common ideas that deterred people from buying movie cameras were that amateur movie making is too difficult for the average person and too expensive.

Market research ideas on the features the simplified camera should have to sell a large market, and the price at which it should sell, became the basic objectives for engineering design and manufacturing. The new camera will have a big view-fir.der, wide-angle lens for a bigger picture, and a dial exposure guide for simple setting of the lens opening. It will retail at \$49.95.

To come up with this product, sales, market research, engineering, and manufacturing worked together through the research board.

The Filmosound magnetic recording projector, with which sound can be added to a film after it is made, followed a similar development.

### III. Percy's Progress

Bell & Howell's "participation" management organization took shape when Percy became president of the company in 1949 after the death of its long-time president, J. H. McNabb. He ran the company as a one-man operation. Made most final decisions himself.

Percy, son of a banker and a native of Chicago, decided to change that system. He wanted greater decentralization, with more individual responsibility. But he didn't want to lose coordination. His solution: the board

Percy got interested in the possibilities of movies when he was a student at the University of Chicago. He was in a class under A. J. Carlson, the school's noted physiologist. Carlson was trying to explain some very complicated idea, which Percy and his classmates weren't able to understand. Carlson showed an educational film, which Percy says made the whole thing clear as day.

From that point, Percy's course was set. He got a job as a trainee at Bell & Howell. Percy came to McNabb's notice, worked at various jobs in all departments. He graduated in 1941 and went to work full time at B&H. He later was made a director of the company and assistant corporate secretary. After a stint in the Navy, he came back as corporate secretary. McNabb tabbed him as his successor and on McNabb's death in 1949 Percy became president-nine months before his 30th birthday.

• Stress-Percy's views on management emphasize the need for the kind of participation his board system offers plus giving employees all the informa-

tion possible.

Percy got his ideas from his experiences on the West Coast during his Navy service. He says he saw a great deal of industrial strife and unrest there that he felt was based on deep distrust due to lack of information.

On the management side, he has also aimed for diversification in order to reach new markets. In addition, he's bought wider exploitation, he's sought wide exploitation of old markets by developing lower-priced quality products. He also has pushed for improved manufacturing facilities and methods to cut manufacturing costs so that B&H can be more competitive.

· Way Up-Percy's right-hand man is Roberts, the vice-president of operations. Between these two and the board system of management, B&H has made major strides since 1949. Here is the financial record: From \$13-million in sales in 1949, B&H moved ahead to \$28.5-million in 1952. Earnings were \$447,000 in 1949 and \$1,450,000 in



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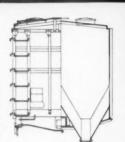
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## Taking a Cue from Business

Connecticut uses job evaluation . . . Universities urged to help business . . . Electric Storage Battery decentralizes.

By taking a leaf out of industrial management's handbook, Connecticut is revamping its salary system so as to save taxpayers several million dollars. The state's legislature has now given its O.K. to the overhauling, which was conceived back in 1952.

Last year Connecticut made a study—with the help of Barington Associates, Inc., New York management consultants—that showed the state had a salary determination problem on its hands because of poor evaluation methods. It had no common yardstick by which to measure the relative worth of the state's 15,000 jobs. The result: Some positions were overpaid, others not paid enough.

• Solution—The study found that the answer didn't lie in a general boost for all employees. This would only aggravate the inequities and hike the cost to taxpayers. The solution lay in selected boosts, to correct only those salaries that were out of line.

Connecticut figured that to grant a 10% across-the-board hike for all employees, as had been demanded by state employee groups in 1952, would cost over \$5-million a year. On the other hand, to make selective changes would cost only an initial \$1.4-million per year and \$3.4-million a year over a longer stretch.

The study also suggested that the state should adopt a point evaluation system, as used in industry. This would let jobs of all state employees—clerks, ferryboat captains, state militia commanders—be measured against each other by a common denominator.

### Help for Planners

More and more companies today are going in for long-range planning (BW —Sep.20'52,p84). But peering ahead into the future at present is a hazardous venture at best. It still needs a lot of spadework before it becomes an effective management tool.

T. F. Bradshaw—a principal of Cresap, McCormick & Paget, New York management consultants—thinks that one reason planning is still in the embryonic stage is that the whole idea of planning, and its procedures and methods, need a lot more research. Many firms, he says, undertake planning without knowing what's involved.

Bradshaw says a major reason for this lack of planning research is that the right people—the universities haven't yet tackled the job. • The Unqualified—As he sees it, company planners can't qualify for the job because they're too busy solving immediate company problems. Then, too, many have spent so much time at specialties such as sales, engineering, and manufacturing that they're unable to see the relationship of all functions of the business to over-all objectives.

Bradshaw also thinks that research organizations like the National Assn. of Cost Accountants or the Américan Management Assn. haven't filled the bill so far because they're not organized for it: NACA is too specialized, serving only a single business function; AMA, though doing general management research, is too compartmentalized within itself. AMA's research is divided along the lines of the various separate functions such as finance and manufacturing. As a result, says Bradshaw, planning research that means looking into all phases of business is "nobody's business" in those organizations.

• Qualifier—As he sees it, this leaves the universities. Bradshaw, a former Harvard Business School professor, thinks they're ideally suited for the job because they're already equipped for it. They can provide research teams made up of men already trained in analyzing the various business functions. Then, too, unlike NACA, they don't serve only a single business function. But most important, says Bradshaw, is that the universities are committed to basic research—not to answering management's immediate

He believes the universities should undertake the necessary planning research because it gives them a chance to make business—through better planning—more of a science. He suggests that they explore the concept of planning, prepare specific research plans, and then approach top management for financial support.

Bradshaw thinks that management, in turn, has a stake in encouraging this kind of research. Management will reap the dividends by more accurate planning.

### More Decentralization

Last week, Electric Storage Battery Co. created two operating divisions one for industrial products and the other for automotive products—by pulling together the company's sales, manufacturing, and engineering functions. These had previously operated as separate departments.

The industrial products division will be headed by Roland Whitchurst, ESB's former sales vice-president; the automobile products division by R. L. Somerville, a former subordinate of Whitchurst. The appointments from ESB's sales ranks indicate the company's stress on pushing sales to keep its expanded plant facilities running at full capacity.

• New Setup—Both Whitchurst and Somerville will have complete charge of line, staff, and auxiliary personnel in their divisions. "Auxiliary" is a new category created by ESB (BW—Mar.7'53,p117) to designate functions such as purchasing and accounting that perform specialized services for the operating people.

The move is a culmination of ESB's decentralization program, which got under way in 1951. In that year, managers of the manufacturing plants were given full charge of their plants, and of the staff and line people in those plants. Until then, ESB had operated on a highly centralized basis. Most decisions were made at headquarters in the field reported directly to the central offices.

#### MANAGEMENT BRIEFS

The class of 1948 has been surveyed by Illinois Institute of Technology. Results show that graduates started work at an average annual salary of \$3,180, are now earning an average of \$6,340, with 17% earning more than \$7,500.

Plant vending machines at Consolidated Vultee Aircraft Corp. have been expanded to carry a variety of foods in addition to the present cola drinks and candy. The proceeds support the Convair Recreation Assn. which, among other things, rents part of a ranch for the use of the company's workers.

The Bulova Foundation, set up by the Bulova Watch Co. to handle ats educational and charitable donations, will award 17 college scholarships this year under a program initiated for the children of the company's employees. The scholarships are worth \$500 and up depending on need. The colleges also receive \$500 for each scholarship holder attending their institution.

30,000 companies will spend \$800-million this year on recreational activities for their workers, according to a study made by the Minneapolis-Honeywell Regulator Co. This, says M-H, is a 15% increase over last year.

# WHAT IT'S ABOUT



## The Services Keep Strings on Millions

With the end of shooting in Korea congressmen are already talking about cutting manpower requirements for the armed services. With an election year coming up, such statements make good political fodder.

Every day brings new announcements of Korean prisoners and veterans returning home. Less and less emphasis is placed on men going into service or going overseas. Just the same, employers, fathers, and draft age men should all remember that Uncle Sam still has first claim on men below 26, and may still have claims on men up to 51. Laws governing military service, put on the books after the outbreak of Korea—and now largely forgotten—provide the military with broad powers to call men back into uniform.

To employers it means that young men in their plants may still be taken off the production line and put into uniform, regardless of prior service.

To young fathers it means that they may still be liable for duty even if they have passed the draft age requirements and have increased their exemptions.

To young men with exemptions it means that the number of years has been extended in which they may be subject to draft.

In general, the laws give the military the authority to draw on the nation's manpower to a far greater extent than ever before in peacetime. They provide for maintenance of the greatest reserve strength since the republic was founded. In effect, Congress has given the government authority to maintain universal military service without exactly calling it that.

· Equality of Sacrifice-Already there's pressure to lessen the military take on manpower. But, President Eisenhower and Defense boss Charles E. Wilson are determined to keep the program going. In fact, they want to advance it somewhat and make every able-bodied man subject to the same obligation as those who have already served. Eisenhower is strong for the principle of "equality of sacrifice." He feels that the more men you get in uniform and in reserve elements now, the less chance there is of recalling individuals who have already served two or three periods of active duty since the beginning of World War II.

The public at large thinks that if you have ever been in uniform for a couple of years and didn't sign up with the reserves, you're done with the military service. This is far from being true. Not counting veterans of World War II, there are over 2-million men who have already seen service and may yet see it again. And every draftee now going into uniform faces a total of eight years duty.

That's what the law requires. But in practice the services are not putting on the pressure. For one reason, there are a lot of loopholes in the draft law. And Congress limited the strength of the ready reserves to 1.5-million men. So, when you take the National Guard, and the Army, Navy, and Air Force voluntary reserves, there is little room left to compel service by veterans in the ready reserve forces.

For these reasons, most men completing their periods of active duty are currently—for all practical purposes finished with military service.

• What the Law Says—Men now coming out of uniform, even if they have been prisoners of war, or served two years in Korean combat, may still be faced with additional years of reserve duty they hadn't counted on. The two iaws that govern their future obligations are: the Universal Military Training and Service Act of 1951 and the Armed Forces Reserve Act of 1952.

The Universal Military Training and Service Act (amended)—known as UMTS—provides for:

 Selective service induction of men for two years of active service and training.

 An eight-year military obligation on men initially entering the armed services after June 19, 1951.

The Reserve Act provides for the

assignment of reservists to mobilization categories, and the mobilization of components.

Here's how the laws work.

Suppose a 25-year old man was inducted ino the Army on Sept. 1, 1951. He serves his two years on active duty and is discharged. He next goes into the ready reserve for three years and can be called on a moment's notice. At the end of that time, he goes into the inactive reserve for another three years. There he may be called only in case of war or at the direction of Congress after a national emergency has been declared by the President. Not until his inactive reserve period is completed is he finished with the military service.

Men who were drafted after June, 1951, aren't the only ones with a reserve obligation. The two laws cover practically everybody of draft age since

World War II.

If you entered federal service after June 19, 1951, and before your 26th birthday, you are required to serve on active duty and in the reserves—Army, Navy, Marine Corps, Air Force, or Coast Guard—for a total of eight years.

If you enlisted for one year of active service between June 24, 1948, and June 19, 1951, you must serve in the reserve for six years. You may shorten this reserve service to four years by training in an organized unit.

If you entered service between June 24, 1948, and June 19, 1951, and were on active duty for less than three years, you must serve in a reserve component for five years. You may shorten this to three years by participation in an organized unit. If you served three years on active duty, you are not required to serve in the reserve.

• World War II—Veterans of World War II are governed by special laws enacted prior to 1948 and their length of service is determined by their enlistments. In general, the eight years of combined active and reserve duty is the maximum to which they may be held.

All military services—the Army, Navy, Marine Corps, Air Force, and Coast Guard—now have the same types of reserve categories. They break down into two types—the ready reserve and

the standby reserve.

• The Ready Reserve—A man is transferred to the ready reserve when he leaves active duty—regardless of whether he signs any reserve enlistment papers. The transfer is usually automatic in most cases. Length of service in the ready reserve is determined by the number of years on active duty; the combined total cannot exceed five years unless the man is willing. Ready re-

serve service requires participation in weekly drills and two weeks of active duty during the summer.

The military isn't making ready reserve duty mandatory right now. It would rather have a volunteer reserve than a compulsory one. And the services are in no position to enforce the law until ready reserve facilities and equipment are available to everybody.

• Standby Reserve—Transfer to the standby reserve after ready reserve requirements are met is not generally automatic. You must ask for it.

You can be transferred to the standby reserve when your ready reserve duty is completed if you haven't agreed in writing to remain in the ready reserves; have served five years or more on active duty in any of the armed forces; have served one year or more on active duty during World War II in addition to one year or more active duty after June 25, 1950; or have served as a member of one of the reserve components for at least eight years since Sept. 2, 1945.

In the standby reserves, you are not required to participate in drills and you may be called up only by Congress in case of war or national emergency.

The National Guard, the Air National Guard, and organized units of the reserve forces of the Army, Navy, Air Force, Marine Corps, and Coast Guard are per se part of the ready reserve.

The two laws governing military service affect about 2-million men who have been drafted or have volunteered for military service since Korea. To employers, this means that a good part of their labor pool may be subject to future service. And, providing the draft law is continued, the percentage will be increased by the number of men coming into the eligible age.

Right now, 17 is the earliest age at which a man may join the services or their reserve elements. That holds true also for the National Guard and the Naval Militia unless state laws provide an earlier age.

A man must register for the draft at age 18. Six months later he will be given a mental and physical exam, classified, and may be drafted. No man will be drafted before 19 if there are other men above that age who can fill

the local quotas.

Generally, no man can be drafted after he reaches 26 unless he has been previously deferred. Once deferred for any reason, the liability for draft extends to age 35. The exception to this are doctors and dentists, who are classified as special registrants and may be drafted up to age 51.



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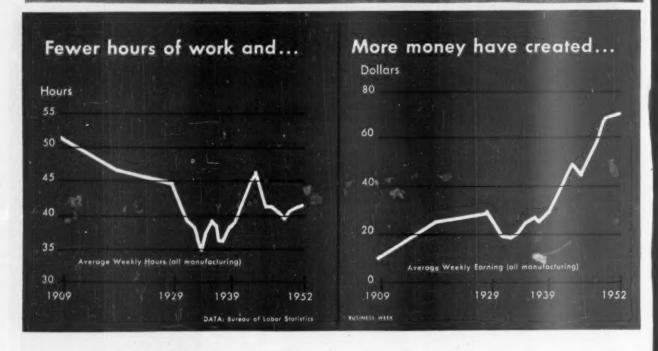
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### . . . A BIG, FAST-GROWING MARKET:

## The Leisured Masses

This article, and one to follow in a later issue, amplify the special report The Changed America (BW—Jun.6'53, p101), which discussed some of the broad trends in ways of living that are shaping the new U. S. economy.

PART I

NOTHING QUITE like it has occurred before in world history. Never have so many people had so much time on their hands—with pay—as today in the United States.

The 40-hour week, the two-day weekend, three weeks' vacation with pay, 10-minute breaks morning and afternoon for coffee, early retirement on pension—these have created a major social upheaval. Leisure has been democratized. Said the New Yorker magazine recently:

"You used to read a good deal about the leisure class, but something seems to have happened to it. One thing that may have happened to it is that too many people joined it and the point went out of it."

The implications of this, from a social and economic standpoint, are enormous. Indeed, it begins to look as though someone eventually will have to rewrite Thorstein Veblen's famous book, The Theory of the Leisure Class, in order to bring it into line with what the masses have done to it.

• Missed Boats—But Veblen wasn't the only one who missed his guess. So did the moralist who equated leisure with idleness and looked for the average man to run riot with drink and dissipation. So did the intellectual who expected commercial mass amusements to turn the masses into vacuous idiots. And so, for that matter, did the businessmen who could see leisure time only in terms of fewer man-hours of work, lost production, more expensive labor.

It hon't worked that way. The average man has simply gone out and enjoyed himself and done it in a way that confused the critics.

He hasn't, for instance, drunk himself into a stupor. To the contrary, he's become so abstemious that he is worrying the liquor industry. Per capita whiskey consumption was about 1.8 wine gal. in 1917. Today it's only about 1.2 gal.

Amusements—He hasn't been swallowed by mass-amusements, and there is some doubt now that he will be. It isn't a question of whether television is on a higher cultural plane than movies, radio, magazines, or newspapers. The point is that there seems to be a major trend away from passive, crowd amusements toward active pursuits that

people can carry on independently. Further to confound the critics, you can't even prove that the straitjacket of mediocrity is getting tighter. If it is any comfort to the critics, books sold by book clubs—one of the chief targets of their criticism—dropped from 54.4-million in 1947 to 44-million in 1951, according to the American Book Publishers Council.

Instead, what the average man has done has been to go out and find, with the aid of busy manufacturers and businessmen, more things to do than anyone dreamed of a couple of decades ago.

He can, in his spare time, dig in his garden with a Rototiller, fly across the Atlantic, go swimming in a plastic pool, fish in the Adirondacks, ski in Sun Valley, winter in Florida, hear chamber music on his hi-fi phonograph, look at Cinerama, make a coffee table on his Skil-Saw, read a 35¢ edition of Shakespeare. The National Recreation Assn. distinguishes no less than 81 different organized activities offered by U.S. municipal parks. A hobby expert named Richard S. Robbins has figured that there are some 200 recognizable "creative activities" in the U.S. today.

All of this has been wonderful for business, even if it does cut across an ingrained American puritanism that

### People are shifting . . .

to:

from:
SPECTATOR
AMUSEMENTS

Billion Billion

\$ .9

INDIVIDUAL RECREATION

\$2.5	\$8.4
Billion	Billion
1929	1952

BUSINESS

# How We Spend Our Leisure Money

As a Pi	ercentage of .	All Recreations	Expenditures	ta Millions
	1929	1939	1952	1952
Spectator Amusemen. Movies Theatre, Opera Pro Baseball Pro Football Pro Hockey Harse, Dog Races College Football Other Non-Profit and Amateur	ts 21.1 16.6 2.1 0.4 0.1 0.1 0.1 0.5 1.2	23.8 19.1 0.9 0.7 0.1 0.1 0.3 1.1 1.5	13.5 9.7 0.7 0.4 0.1 0.4 0.9 1.2	1,577 1,134 87 49 10 6 42 105 144
Participation				
Amusements Billiards, Bowling Dancing, Swimming, etc. Amusement Parks (Devices) Golf Other	4.8 1.3 0.7 0.4 2.1 0.3	5.3 2.0 0.8 0.4 1.8 0.3	- 3.8 1.1 0.8 0.3 1.4 0.2	448 129 92 - 36 169 22
Individual Recreation Books, Maps Magazines, Newspapers, etc. Nondurable Toys Sporting Goods Boots, Planes Radio, TV, Records,	7.1 12.4 7.8 4.2 0.6	59.4 6.4 16.1 8.3 5.6 0.6	<b>72.2</b> 5.4 12.5 11.0 6.7 0.7	8466 638 1,468 1,284 790 79
Musical Instruments Photo Developing, Studios Flowers, Seeds Other	23.4 1.7 5.1 1.7	12.2 2.3 5.5 2.4	19.8 3.8 7.1 5.2	2,324 442 836 605
Gambling Cain Machines, Pari Mutual Net Receipts	0.4	2.9	3.6	419
Other	9.8	8.6	16.9	806
	100.0	100.0	100.0	11,716

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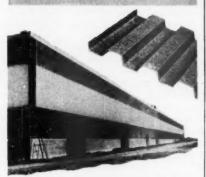


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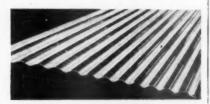
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compels belief in work for work's sake.

• Creature—The thing that has been overlooked is the creative aspect of leisure. Adding a few hours to people's leisure time not only changes the time when they do things, but also what things they do, where and how they do them. People stop doing some things they used to do, for instance filling in a Saturday afternoon by dropping at the bar around the corner. Instead, they may go off for a weekend trip beginning Saturday morning, thereby setting up a whole new set of demands, wants, desires.

One of the chief prophets of the creative aspects of leisure is Paul Mazur, partner in the New York investment banking house of Lehman Bros. Mazur, whose book, The Standards We Raise, is published this month, made this

comparison recently:

"Take a serf who works 12 hours a day, seven days a week. What kind of life is that? He's a mole. All he needs is some burlap to clothe him, some potatoes, a pair of brogans. Now think of a family spending its leisure on the beach or gardening. The slave hasn't time to consume anything. The family on the beach has time for everything."

· What Price?-Just how much we spend on leisure is an unknown figure. The statistics compiled by the Dept. of Commerce provide the only yardstick available (page 143), but it is far from complete. The problem is how to sort out that part of goods and services we buy for leisure use, from that part for regular consumption. A major lack in what the department can sort out as "recreation" items is any accounting of the huge volume of lumber, household materials, and tools, bought strictly for amateur, leisure use. Liquor is not included. Neither are the clothes, sunburn salves, sports cars, or hundreds of other goods that are bought directly because of leisure. Perhaps the biggest lack of all is a figure for travel.

How much do you add to find the country's annual leisure expenditures? How much for cigarettes, clothing, liquor? How much for travel? The whole \$9.2-billion that the American Automobile Assn. figures Americans spend annually on car vacations? Hardly. That includes food and other items they would buy anyway.

But what's important to remember here is that this money is spent in the posture of leisure, which means it is spent under different conditions and in different places than it might ordinarily be spent. Perhaps—as a very rough guess—as much as 15% of total consumer expenditures (\$218.1-billion all told last year) is spent for leisure or while the country is at leisure.

In cold-blooded terms, that's what leisure has come to mean to us.

#### I. The Added Hours

Webster pronounces leisure with a long sound, as in eve, and defines it as "freedom or opportunity afforded by exemption from occupation or business." There is more than one way, however, to get that freedom.

No one particularly wanted the kind they had during the Depression, the kind without pay. They had plenty of free time but no money to do anything with. It is an interesting sidelight on the American people that the circulation of library books and the carrollment in adult education courses in high schools were both greater during the Depression than before or since, though the population is now bigger.

Prosperity has done extraordinary things to our leisure habits. And for this we are in turn indebted to increased productivity—the value of a worker's output in a given time—which has made the prosperity and the leis-

ure possible.

Basically, you can take a choice about what you will do with your increased productivity. You can take part of it in the form of more goods and services, and we have certainly done that. Sociologists Reuel Denney and David Riesman, who are making a major study on leisure, recently pointed out that, "if we were willing to accept the standard of living of 1870, most of us could presumably get by with a five-hour week." Actually, about a third of our increased productivity, it is generally figured, has gone into leisure.

There is likewise a choice as to how we will draw down this new stock of leisure. There are these major ways of doing it, each with its own conse-

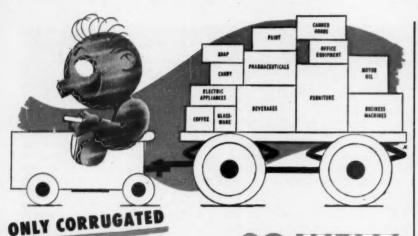
quence for the economy:

Shorter hours. In 1890 industry pretty generally worked on a 60-hour week. This gradually dropped over the years, with the last big change coming in the 1930s. Thanks to a combination of depression, unionism, and government legislation we came out of the Depression with the 40-hour week firmly clutched in our hands. Some employees, particularly in the garment and printing trades, construction, the rubber industry and office work, now have work weeks ranging down to 35 hours.

It is impossible, of course, to calculate the long hours of drudgery that machinery has saved on farms. In retailing, the picture is much clearer. Once bound to notoriously long hours, retail employees now have a slightly shorter work-week than factory workers (BW-Jun.6'53,p41).

Longer weekends. The half-day on Saturday, which was on its way out when World War II broke, is now gone for good.

Paid vacations. In 1940, only a



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Southern Paperboard Corporation Port Wentworth, Georgia quarter of all labor contracts provided for paid vacations. Now almost all contracts include paid vacations of some duration. In fact, about 42-million wage and salary workers are now eligible for paid vacations.

More significant than this is the

More significant than this is the growing length of vacations, a trend that has just begun to make itself felt. A Bureau of Labor Statistics survey of contracts covering 5-million workers shows that more than half of these people are eligible now, or will be when they have seniority, for three-week vacations or better.

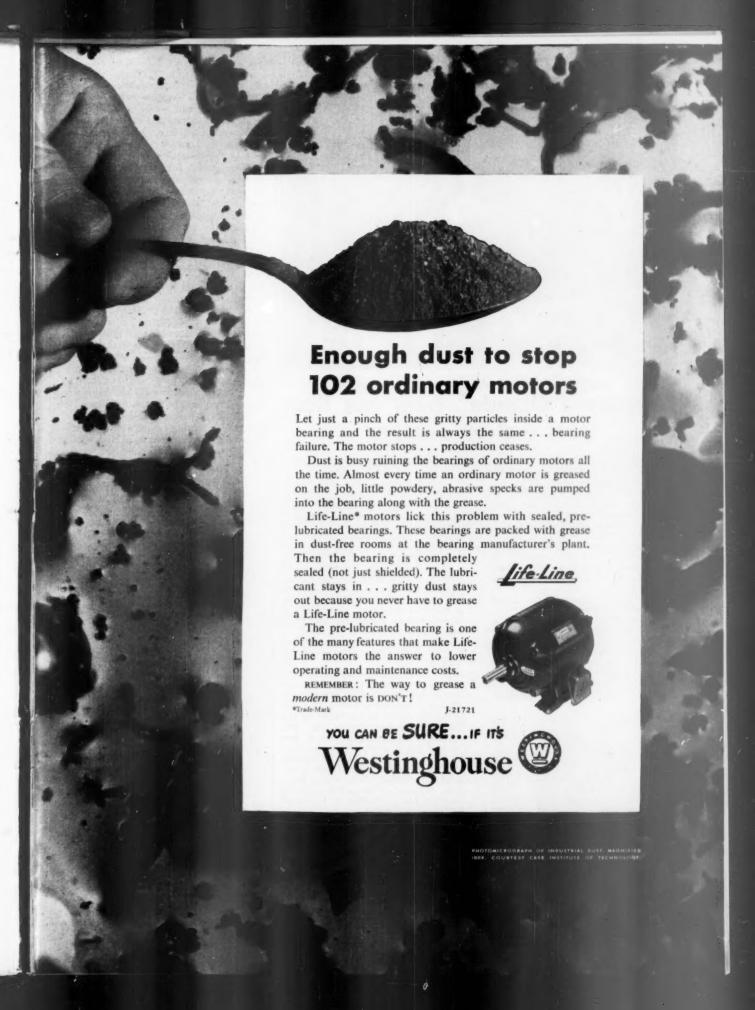
The break. More and more companies are giving their employees a 10-minute break for rest and coffee in the morning and afternoon. Some insurance companies even give two 15-minute breaks. This trend, which began as a way of keeping productivity high by giving workers rest, may eventually become a fairly significant factor should there be a slack-off in the economy. The 10-minute break is already creating a vast new market for coffee and snacks; longer rest periods could develop a new market for recreational equipment.

Retirement. By now the country is well aware of the significance of this growing body of nonemployed people. A summary of the problem made by the National Planning Assn. for the Joint Committee on the Economic Report points out that there are now about 13-million persons over 65 in the U.S., of whom only 4-million work or are the wives of working men. In 25 years, NPA calculates, there will be 20-million people over 65. Of these, 14-million will not be working—half as many people as the entire U.S. work force in 1900.

There is one other major area in which we have won leisure-the home. The disappearance of servants has made > less leisure for a top segment of American women, but on the whole-thanks to machinery, services, ready-made clothes, and a host of other thingswomen have far more leisure in this country than ever before. In part this has produced an irony: It has released women from work in order to take jobs. Today, slightly more than 30% of the work force is made up of women, as against 20% in 1920. In other words, people don't always choose leisure. In this case, women have chosen to go to work to earn the money to keep up a standard of living that now includes an endless list of things like cars, TV sets, washing machines.

• Days to Come—What about the future? What can we expect in the way of shorter work hours, more leisure?

Right now, for practically the first time since the Depression, there is talk among unions of the 35-hour week;





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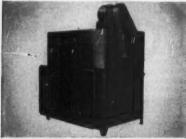
Noxious fumes and gasses in this chemical laboratory meant that the room had to have a constant, complete change of air!

A prominent midwest company wanted to include this "air-hungry" lab in their plans for year-around air conditioning. But they reasoned it would be too expensive, since none of the room air could be recirculated as in a normal installation.

Was there a solution? Yes . . . and

an economical one!

The entire second floor office section of the building was to be air conditioned. Some of the air in this section would have to be continuously discharged to make room for incoming ventilation air. Why not direct this perfectly good air—already "conditioned"—down through



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the first floor laboratory room before it was discharged to the outside? No reason at all! Now, lab workers

No reason at all! Now, lab workers enjoy increased comfort, increased efficiency—all the benefits of year-around air conditioning—but without unnecessarily high equipment and operating expense.

There were other economies too. In fact, a total of five money-saving "double-uses" were incorporated into this unique installation. These special features were both practical and economical to install because engineers knew they could get all of the special types and sizes of equipment needed from one manufacturer—TRANE!

One source—one responsibility—for all equipment is an important money-saving "plus" in any air conditioning, heating or ventilating job. Make sure you get it! Talk to the Trane Sales Engineer in your city. In the meantime, write for a free copy of the booklet, "Temperatures by Trane." You'll find it interesting and informative. The Trane Company, La Crosse, Wis., East. Mfg. Div., Scranton, Penn., Trane Co. of Canada, Ltd., Toronto. 87 U. S. and 14 Canadian Offices.

# TRANE

manufacturing engineers of air conditioning, heating and ventilating equipment no one takes it too seriously as yet. But what will happen when some spreading of the work becomes an issue? Remembering the history of the work week-how it dropped from 60 to 48 to 40 hours-we may yet begin to take the 35-hour week seriously.

There is also the fact that productivity is bound to increase. Tie this up with the increasing possibility of automation, which requires fewer but more highly skilled workers (BW-Aug. 15'53,p158), and the chances for shorter hours become greater.

Here is the guess by W. S. Woytinsky of Harvard, who edited the Twentieth Century Fund's massive study, Employment and Wages in the United

States:

"Assuming that one third of the annual gain in productivity is used for increasing leisure and two thirds for raising the material standard of living in the nation, the average rate of increase in real income per man-year would amount to 1.7% to 2% or 18% to 22% a decade, while the normal work week would be cut by five hours."

That makes the four-day week a definite possibility. Not today. Nor tomorrow. But sometime in the not-too-distant future, providing the bets aren't called off by war or depression. Perhaps sometime in the 1960s.

#### II. Time in Big Chunks

It is now becoming clear that of all the types of leisure, it is the five-day week—the long weekend—that has had the most significant impact on our ways and our economy.

What's important is that chunk of time, those three full nights and two full days beginning Friday evening. This has had a number of important consequences, the most important being that it has helped decentralize us.

The half day on Saturday was a strong deterrent to commuting any distance. But with a full weekend ahead of him, a man finds it worthwhile to put in more time going to and from

work during the week.

• On Wheels—The car, which made decentralization possible in the first place, has experienced a tremendous lift from this movement. This is a very clear illustration of the close tie between leisure time and markets. Once the car got the city dweller out of town, it became a necessity for work, church, movies, shopping, pleasure. Furthermore, this whole pattern is building a new market for the second car, a smaller car, that Paul Mazur thinks Detroit is still overlooking.

The long weekend has also changed a lot of our leisure habits by giving us

time for bigger projects.

• Men with Hoes-It has made gardeners out of millions and millions of



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Americans who sedulously avoided dirt up until recently. The Dept. of Commerce figure for the total expenditures last year on flowers, seeds, and potted plants-\$836-million-is a staggering amount. It's within hailing distance of the biggest paid admission recreation, the movies (\$1.1-billion). And it is very nearly the amount we spend all told for higher education (\$930-million).

The Saturday Evening Post was so impressed recently by what has been going on in the nation's backyards that it published an article (one of a series on leisure) entitled "Thirty-Million Gardeners." One of the most interesting facts it turned up was the growth in the Men's Garden Clubs of America, which has now accumulated 150 chap-

The combination of leisure, suburban living, and gardening has built a new industry, the outdoor power tool business. This has already developed a \$200-million-a-year volume in mowers, tractors, saws, clippers, scythes, and other lethal instruments (BW-Apr.4 '53,p58).

The same combination has built what is now widely known as the do-ityourself movement (BW-Jun.14'52, p60), which now absorbs a large though untold amount of goods, labor, and money. By now everyone is familiar with the extraordinary market this has created for paint rollers, paint, tools, flooring, and a raft of other things. The latest industry to succumb to the movement is the wallpaper business (BW-Jul.4'53,p42).

Concurrent with this has been the equally extraordinary development of power tools, which have put mechanized workshops into the basements of hundreds of thousands of U.S. homes. Electrical Merchandising, a McGraw-Hill publication, puts the current market for power tools at about \$200-million and sees a \$500-million potential. · Ways of Life-Having changed our habits, it is no surprise that the New Leisure has also changed our dress, our manners, and our family life.

In place of Veblen's conspicuous consumption, we are getting what might be called inconspicuous con-sumption. The day of large yachts, mink, big estates, and other forms of conspicuously conspicuous consumption hasn't passed away entirely, but thanks to the income tax and a general leveling of incomes, there isn't so much of it anymore. At the same time, there is the fact that whatever is started by the rich in this country tends to fall eventually into the hands of the not-so-rich. Cars, refrigerators, sailboats, travel, places in the country, tennis, swimming pools, and a host of other things started out as the perquisites of the well-to-do and now be-

long to the masses. The Detroit factory worker flies to Europe for his vacation and listens to Stravinsky at home on his hi-fi set. The executive looks at TV and has a workshop in his basement where he can retire when he gets sick of the Dodgers.

This process of jumbling up the masses and the classes can best be seen

• Informality-Ever since the war there has been a very marked trend toward the informal in clothing, with men's clothes in particular taking on more and more of the character of leisure clothes. One example will suffice: Where in 1947 dress shirts made up 73% of all men's shirts sold, last year the figure was only 33%. The rest were sports shirts.

The same goes for women. The trend toward informality-blue jeans, sweaters, casual skirts, sneakers-has taken on the aspect of a major retreat from high style. It worries the garment industry, which finds itself selling fewer clothes per capita than when women dressed up to go downtown or to a bridge party.

The ultimate effect of suburban living, the long weekend, backvard sports, and the home workshop seems finally to have been reached.

The Fairchild publication, Men's Wear, has just introduced something it calls "Xtras," which it describes as "a new merchandise classification." Perhaps it is. This is a fascinating hybrid of sports and work clothes, a melange of polo shirts, dungarees, denims, sweaters, swim trunks. A typical combination consists of a Basque shirt and shorts of denim.

As Solomon Barkin, research chief for the CIO Textile Workers Union, recently remarked to a reporter for This Week magazine:

"This is the most informal and casual era in the history of American clothes. Even the wealthiest people are dressing casually; it's the first time they've copied a style from the lower income groups, rather than vice-versa." • Full Circle-At the same time something else has happened that has brought clothes in a full circle. Workers' work clothing has taken on the attributes of sports clothes (BW-Nov. 15'52,p46). Thus the uniforms of the classes are disappearing. The white tennis flannels and the overalls have gone, merging into the something called "Xtras."

The clothing industry isn't particularly fond of the blue jean era. In 1929, clothing took 9½% of the total consumer expenditures. Now it takes only about 8%

Weekend leisure has done one other thing to society. It has welded the family more firmly into one piece than at any time since it was atomized by





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# Wire Rope ...

. . . and aluminum windows join list of products in which extruded plastics are used

Extruded plastics, originally used largely for the insulation of electrical wiring, are rapidly finding their way into many new fields.

For instance, extruded plastic shapes are now used as the core around which wire strands are laid to form the wire rope used in the drilling of oil and gas wells. In this service, the core comes in contact with sub-surface hydrocarbons which are highly destructive.

A polyvinyl chloride core, specially formulated and extruded by Irvington, has been found in actual field experience over a period of years to offer exceptional resistance to these chemicals. The vinyl core provides exceptional lasting qualities under severe operating conditions, retained flexibility, and because of its non-absorption of water, resistance to interior wire corrosion. In addition, production economies are effected through dimensional uniformity and easy splices made by a heat sealing process.

Extruded plastic channeling has long had an established place in the glazing of aluminum combination storm sash. It is now branching out into the field of glazing for regular window frames made of aluminum. Known in the building trade as primary windows, these plastic-glazed aluminum windows have already been used in a number of large housing developments and commercial buildings. Chief advantages of extruded plastics in windows are lasting resiliency, physical stability and long life under severe weather conditions.

Still other fields of applications for Irvington extruded plastics include: food packaging, where low moisture vapor transmission insures freshness; household appliances, where the plastics are used as shock-absorbing bumpers for vacuum cleaners and floor polishers, and as gaskets in refrigerators; and the medical field, where plastic tubing is used in blood collection kits and solution infusion sets.

A more complete story of these and many other extruded plastic formulations, for electrical and non-electrical applications, is told in "Facts on Fibron." For a copy, write Irvington Varnish & Insulator, Div. Minnesota Mining & Míg. Co., 26 Argyle Terrace, Irvington 11, N. J.

the changeover from an agricultural society.

Fathers are taking greater interest in their families. They're doing more baby tending, more shopping than they used to. Group amusements are back again, things like picnicking, gardening, traveling. A nice example is al fresco cooking, a la the California barbecue, which has, so to speak, taken the kitchen from around Mother and put it around Father, outside.

 Business Angle—Everybody is busily trying to fit his business into these radically changed habits and customs of the American family. Lee hats has burst forth with an amazing panoply of hats to fit every conceivable aspect of sports and leisure. Several Federated department stores have installed patio living sections. Restaurants, losing business because of the baby-sitting problem, have decided to follow the customer to his home by pushing take-home meals (BW-May3'52,p44). Retailers are having to reschedule their hours; people don't like to shop on Saturdays any more, so stores are staying open week nights. Car makers, who made a mere 25,098 station wagons in 1940, turned out better than 200,000 last year to supply the new suburban demand for a utility car.

These are not the only businesses that have been affected by the leisured masses and their new ways. The list is very nearly endless. Travel, sports, hobbies, magazines, movies—all these and many more are now in a state of change as a result of changing habits.

### Heat Wave Melts Retail Sales

Torrid weather drives customers away from stores in droves . . . New location for shopping center . . . Beer battle continues.

"Ordinarily, the week before Labor Day is like a juicy red apple, but this year there's a heck of a big worm in it." That's what one Cleveland store executive says about the effect of the heat wave on retail sales. Around the country, where the heat wave covered the land like six too many extra blankets, most retailers moaned the same dirge.

· Sad Statistics-Detroit department stores estimated that business was off 15% for the last week of August and the first few days of September, with the largest store, The J. L. Hudson Co., reporting this drop as the largest in its memory that was due to a heat wave. Some stores in downtown Chicago figured sales were off as much as 50% during the second week of the heat wave. A big New York store says its Back To School promotion was accomplishing little; people stayed out of the store in swarms, and many of those who did come in didn't buy-they just wanted to bask in the air conditioning. The same store reports that sales on the ninth day of the wave (Sept. 2) were down 38% from last year. In Cleveland, stores cut newspaper advertising way down, because they knew it wouldn't lure women downtown.

As for official figures, the latest available by midweek were the Federal Reserve Board's report of department store sales for the week ending Aug. 29, when the heat wave was only five days old. Even so, the report showed a drop of 9% compared with 1952.

• Blaming the Press-There was, of course, some antiheat-wave thinking. In New York, W. E. S. Griswold, Jr., president of W. & J. Sloane, and head

of the Fifth Avenue Assn., scolded the press for overemphasizing the heat. He reminded the newspapers that scaring customers from the stores means lower advertising revenue for the press. Other merchants were not so quick to blame the heat—or the newspapers—for depressed sales as they were to point to the late Labor Day and the resulting longer vacations and delayed school starts.

### Superhighway Shopping

Plans just announced for a new shopping center to be built in Connecticut bring up some new thoughts on site-picking.

National Store Planning and Research, Inc., of Boston (which under a former name built Shoppers' Wold, in Framingham, Mass.), has been awarded a contract to develop a 100-acre site on Connecticut's Wilbur Cross highway. The unusual thing about the new center is that it will be located smack on an express toll road. Many states, especially Connecticut, have long followed a policy of allowing only a few commercial enterprises like gasoline stations on superhighways.

National's Connecticut center will be located at Newington, just south of Hartford. It will be near a cloverleaf intersection and will have a 3,000-ft. frontage on the highway. It is the third center built or planned by the company: the first in Framingham; the second, not yet constructed, in Beverly, Mass. Before the end of the year, National expects to announce plans for

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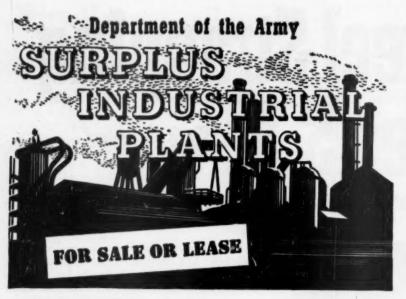
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Provides facilities for the complete gasification of approximately 20 tons of coal per day to produce a carbon monoxide-hydrogen mixture which is used in the synthesis of hydrocarbon by the Fischer-Tropsch process. Capacity: 40 to 80 barrels of liquid fuels a day and, in addition, by-products.

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five more centers. Two of these will be in Pennsylvania, and the other three will be on or near the West Coast, where the company will open a branch office.

#### Update: Beer Battle

The battle between Blatz Brewing Co. and the Milwaukee Brewers Assn. is getting more intense. It started in late August, when the association voted to oust Blatz from its membership (BW—Sep.5'53,p48). The reasons, though unannounced, were plain to the industry: (1) Since last spring, Blatz beer has been fair-traded, a policy opposed by other members of the association; (2) Blatz ended Milwaukee's 77-day beer strike by negotiating separately with the brewery workers' union, instead of working with the association's employers' bargaining committee.

Now, Blatz, which is owned by Schenley Industries, Inc., has launched its counteroffensive. Last week it sued the association and its six members for \$350,000, claiming they had conspired illegally to deprive Blatz of membership. It asked the court for an order restraining the association from holding meetings or spending money without giving Blatz a chance to participate, and further asked for an order directing the defendants to restore Blatz to membership.

#### MARKETING BRIEFS

More salesmen: With automobile marketing entering its most competitive era in over a dozen years, manufacturers are preparing their sales forces for the big struggle. By October, 900 Ford dealers in the northeastern states will have more than twice the number of salesmen they employed a year ago. Ford says the average salesman is under 35, has less than three years experience selling cars.

Football tickets will be used in a promotion scheme by American Stores Co. The Acme chain has bought 40,000 seats for the Sept. 19 game between Villanova and Georgia in Philadelphia, plans to distribute them through its stores in the Philadelphia area, perhaps by giving away one ticket with each purchase over \$10.

The J. L. Hudson Co., Detroit department store, which vies with Macy's as the "world's largest," now has the world's second largest private telephone exchange (the largest is in the Pentagon). Hudson's board can handle 40,000 calls a day, is so big it has its own exchange name, Capitol.



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# The Charm of Booie, The Witch Doctor

Booie, the Kaffir witch doctor, didn't want to part with the charm. Often he had made big magic with it in his ceremonial dances and without it he might lose face. And, didn't it have miraculous powers?

Schalk van Niekirk, the old Boer trader, thought so—at least it had the power to make him a very wealthy man, for this pebble was four times the size of the one he had sold two years before.

So, all day long they haggled and Schalk brewed pot after pot of Dutch coffee, heavy with sugar, well flavored with a magical potion from a stone bottle and served it with the free hand of a man who feels a fortune tickling his fingertips.

Finally, he stood up, stamped out the fire and said, "Booie, come to my kraal and I will give you 500 sheep, 10 oxen, and a horse—I have nothing more." Booie held out his hand; suddenly, he was incredibly rich.

Schalk sold the big diamond—it weighed 83½ carats—for \$56,000, a hand-some fortune in 1870. In London, after cutting to 46½ carats, it proved to be of the finest color and brilliance, and the Countess of Dudley gladly paid \$125,000 for it. In her tiara it became "The famous Dudley Diamond."

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# INTERNATIONAL OUTLOOK

BUSINESS WEEK SEPT. 12, 1953



Chancellor Adenauer's sweeping election victory (page 160) has given Washington a real lift.

- It puts West Germany squarely behind the U. S. in the struggle with Russia, ends Moscow's hopes of neutralizing Germany.
- It means that West Germany will soon rearm, either within the proposed joint European army (EDC) or as a full member of the North Atlantic Treaty Organization.
- It proves that the Germans have got back on their feet politically, just as they already had economically.

It will take all Washington's diplomatic skill to turn Adenauer's triumph to full advantage.

Germany's comeback doesn't cheer France. It's doubtful if the National Assembly will ratify EDC.

The British didn't want Adenauer to lose. But they seem to regard his great success as a mixed blessing. They are wondering if Washington will be tempted now to make Germany, instead of Britain, our No. 1 ally.

No dramatic news is being made this week in Washington at the annual meetings of the International Monetary Fund and the World Bank. But the sessions are important, nonetheless.

On the one hand, the conservative investment policy of the World Bank is under fire by many foreign delegates. There is strong pressure on the U.S. to agree to expanded activities by that institution.

On the other, the whole question of currency convertibility is getting a thorough airing in behind-the-scenes talk at the IMF meeting.

This session of IMF carries the convertibility issue a stage beyond the U. S.-British financial talks held in Washington last March.

At that time the British were after U.S. backing for sterling convertibility but got turned down.

This time the pressure is to get U.S. support for a joint approach to convertibility of all major European currencies.

There is a special urgency about the convertibility talk now.

Across the Atlantic there is a general assumption that the U.S. is heading for a recession deep enough to hurt Western Europe.

So European finance ministers and central bankers want the U.S. to commit itself in advance to convertibility.

They think that the repercussions of an American recession would be minimized this way—assuming that Washington would put up a stabilization fund and adopt emergency economic policies to help maintain U.S. purchases abroad.

In addition, of course, they would like to see the U.S. liberalize its tariff policy for the long run.

U.S. officials are making an all-out effort to convince foreign delegates that the U.S. economy isn't in for any serious trouble, that there's no need to rush convertibility on this account.

On tariffs, U.S. officials have to hedge, of course. Policy changes

### INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK SEPT. 12, 1953 in this field must await the study that's being made by President Eisenhower's special commission on trade policy.

But foreign delegates are still far from reassured, especially on the business outlook here.

French traders think a devaluation of the franc is likely this year, regardless of whether there's any joint move toward convertibility of European currencies.

It would come if the French labor campaign for an across-the-board wage increase is successful. That drive will come to a head next month.

French prices already average 20% above world market levels; a general wage hike would push them further out of line.

For the first time since 1930, British trade unions are threatening to bolt the Labor party. That's the big news from the Trades Union Congress on the Isle of Man this week.

It was in 1930 that the unions turned left, split the party, isolated Premier Ramsay MacDonald. It took Labor 15 years and a war to regain power. "Ramsay's ghost" has stood as a warning ever since.

#### This time, British trade unions are turning sharply right.

Union leaders are enraged by the bitter personal attacks on them by leftwinger Aneurin Bevan and his men. The Trades Union chiefs say their membership is only partly Socialist, that Labor had better not take the union support for granted.

The union men have invited moderate party leaders to get tough with the Bevan "extremists"—or else.

As it looks now, British unions will never accept Bevan as a future Labor Party leader.

So there's a lot of thinking about who is to succeed Attlee.

This much is clear: Whatever the sentiment of Labor politicians at the upcoming party convention, the leadership must stay rightwing or the party will split wide open.

While London defense planners worry about military plane production (page 162), the rest of the world is watching civil aircraft at Britain's annual Farnborough air show this week.

There, the outlook is good. The Comet II jetliner is just now coming off the lines; the Vickers Viscount medium-range turboprop liner is in service; the Bristol Britannia long-range turboprop job will be ready next year.

These three are the mainstays of British civil airplane production now.

Plane makers have fat export orders for all three. And they're aiming for more—through the medium of a unique new credit corporation.

This week, three London banking houses (Lazard Bros., Erlangers, Ltd., and Morgan Grenfell & Co.) announced formation of Air Finance, Ltd. It will provide overseas buyers with longer credit terms than British plane and engine makers can afford. Air Finance will have official backing—through the government-sponsored Finance Corp. for Industry.

Decimals accordinate under the general copyright on the Sopt. 12, 1982, Issue-Business Week, 250 W. 42nd St., How York, N. Y.



BIG INGOT—Three days before the picture was taken in our plant at Bethlehem, Pa., open-hearth pit men poured the 275 tons of molten steel for this ingot into a mold to solidify. Now, after 72 hours of slowly cooling off, the ingot, still a glowing red, is on its way to the Bethlehem forge shop where it will be forged into a long, slim column for a huge press to make airplane components, part of the Air Force heavy-press program..... Ingot, forging and press, all are alike of spectacular size. The forging to be made from the ingot is 110 feet in length, the longest ever made. The press, built and installed by the Loewy Construction Company at North Grafton, Mass., will be as tall as a 10-story building. Its supporting columns will be made up of 18 Bethlehem forgings, each made from a steel ingot like the one above.

BETHLEHEM STEEL

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# BUSINESS ABROAD





CHANCELLOR Konrad Adenauer, assured of another four years, will worry less about opposition propaganda such as this cartoon. From

# Keeping West Germany Allied with

The people of West Germany made an historic decision this week when they gave Chancellor Konrad Adenauer a resounding election victory. They voted to stake their hopes of a unified Germany on a military alliance with the U.S. and to reject any idea of gaining unity by accepting a neutral position in the East-West struggle.

the East-West struggle.

• Defeat for the Soviet—Adenauer's victory is sweet music for Washington's cars. Coming on top of the June 17 uprising in East Germany, it constitutes a decisive defeat for Soviet policy in Germany. It means that the Bonn Republic will rearm as part of the North Atlantic Treaty Organization. And once German rearmament gets under way, the military balance in Europe will shift strongly in favor of the West—so strongly that the Russians may decide within a year or two that their best bet is to pull out of East Germany.

The Sept. 6 election also means that Bonn will have a strong and stable government for at least four years—one that's committed to continue the economic policies that have encouraged the industrial comeback of West Germany. • Comfort—American policy has clearly played a big part in bringing the Germans back to a dominant position in Western Europe. This is no small comfort at a time when France and Italy, despite our efforts, look desperately weak. You can't assume, though, that everything will now go smoothly in Western Europe. Our plans for integrating Bonn into the Western defense system may have to be revamped.

The U.S. had hoped to bring Germany into the North Atlantic Treaty Organization as a member of the European Defense Community. EDC was to be the vehicle for getting the French to tie themselves up with the Germans in a military effort. But now the French may be more reluctant than ever. The result may be that West Germany will be taken directly into NATO—as a full-fledged member in its own right. In either case, though, there's bound to be more political trouble in France and probably a bitter clash between Paris and Washington.

• No Rubber Stamp-The day may even come when Bonn will have differ-

ences with the U.S. on a basic issue like German unification. It is clear enough that Adenauer aims to use his alliance with the U.S. to gradually force unification out of the Russians. But that won't guarantee that his idea of how to come to terms with Moscow will be exactly the same as ours. It's quite possible that a United Germany may some day aspire to play an independent role between the U.S. and Russia. Still, Adenauer's victory is a sure guarantee that for a good while Germany has decided to orient its policy with the world strategy of the U.S. and that this decision won't be lightly changed.

• The Record—A four-year record of success in both domestic and foreign policy accounts for the impressive victory Adenauer chalked up at the polls. With this record, plus shrewd campaign tactics, Adenauer was able to dominate the whole campaign.

Domestically, he could point to four years of continuing economic progress that was visible to every German. His economic policies, which were formulated and directed by Ludwig Erhard, Minister of Economics, raised Germany



here on he will be . . .

# the U.S.

from a mass of rubble to a nation of generally well-fed and decently clothed citizens.

In the field of foreign policy, Adenauer was able to establish West Germany as a real factor in world politics, whose opinions were sought and heeded by other Western statesmen. This gave him prestige with a people who had only recently been treated as outcasts. There was also widespread support for his idea of integrating first Western Germany and then a united Germany with Western Europe. Above all, his reliance on close ties with the U.S. struck the average German as the course of wisdom.

Thus, most Germans were satisfied with Adenauer's record at home and abroad. To many Germans, the Socialists' proposal to leave unification to a Big Four meeting smacked too much of Potsdam and the 1945 occupation policies.

At the same time, Social Democratic promises of a better and fuller life appealed so little in a prospering Germany that even Socialist strongholds in the industrial Ruhr fell to Adenauer.

• Democratic Growth—There's no doubt that the West German voters have placed a stamp of approval on U. S. postwar policy in Germany. Our efforts to foster democracy there have borne rich fruit. The impressive total of 86% of eligible voters cast their ballots. The Communists got only 2.2% of the total vote and the neo-Nazis only 1.1%.

Adenauer's Christian Democratic Union emerged from the election with more strength than any other free German party has ever won. It got 45% of the popular vote and now holds 244 seats out of 487 in the Bundestag. That gives Adenauer an absolute majority of one. To make it a workable majority, however, he will need the support of the Free Democrats.

• Looking Ahead—Adenauer's toughest job will be carrying out his basic foreign policy aims—to build a united Western Europe and to unify Germany itself.

Despite Adenauer's victory, EDC is still a big question. Adenauer's victory will encourage EDC's supporters. U. S. officials now think that ratification may be possible by the end of the year, especially if Adenauer can make some concessions to the French on the thorny Saar question.

But many European observers see West Germany so strong now that the French National Assembly will be more hesitant than ever about ratifying EDC. It that's the case, the U.S. will put it up to Paris—either ratify EDC or Germany will come into NATO on its

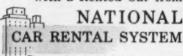
· On Their Own-Gaining membership in NATO would probably suit the West Germans even better than EDC. They haven't much confidence in the French military, would prefer to work directly with the U.S. rather than via a joint European setup. Moreover, the Germans don't regard EDC as essential to economic unity in Western Europe, which is the thing that really interests them. They are convinced that they can outproduce and undersell the rest of Western Europe. Integration would give them free access to all Western Europe plus associated territories such as the sterling area and the French colonial empire.

• Soviet Reactions—German unification depends, of course, on how the Russians react to the German elections. Moscow now knows as well as Washington that its hope of neutralizing Germany has been shattered. But Soviet policy won't be adjusted to that overnight. That means that Moscow probably will stall for a while on Germany, which doesn't make the prospects for an October conference on the German problem any too good.





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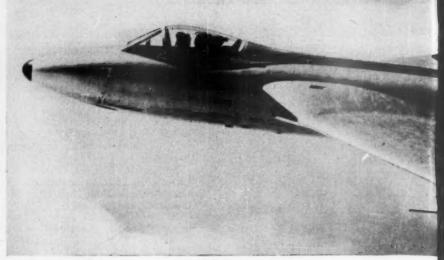
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ARROW-SHAPED Hawker Hunter this week cracked the world's level-flight speed record

# The RAF: Brilliant

This week, along England's south coast, Squadron Leader Neville Duke piloted his swept-wing Hawker Hunter fighter (picture, above) to a new world's speed record. The performance was a flashing curtain raiser for Britain's annual Farnborough air show, and another reminder of the design and development genius of the West's second

air power.

The Society of British Aircraft Constructors has virtually all of Europe's contribution to NATO air power on display at Farnborough this week. For with the exception of France's Mystere fighter, it is the British industry that will supply the non-U.S. planes to secure the air over Europe. Americans -and there were a lot of them among the half-million onlookers at Farnborough-were assured that Britain's fertile design teams have used some \$280-million in direct U.S. aid to the air industry to good purpose. Britain can boast some of the finest and fleetest aircraft in the world.

· Just Promise-But there is this troublesome reservation: For the third year in a row, Farnborough visitors are seeing great promise rather than great practice. Behind the spectacular supersonic bangs at Farnborough are halting production lines. The new RAF is only one or two aircraft deep in

many categories.

There's only one production model of the Hawker Hunter, which is supposed to fly with the Dutch, Danish, Belgian air forces, to say nothing of the British. There isn't a squadron of the Vickers Supermarine Swift, a current favorite of the RAF, flying as yet. The Gloster Javelin night-fighter, Western Europe's best hope in its class, is a year from production
The RAF Bomber Command's three

"V's," the Vulcan (picture, right), Victor, and Valiant, are just four operating aircraft. And that's the only non-U.S. strategic bomber force in the West. English Electric Co.'s Canberra light jet bomber is the one really modern aircraft being delivered in any quantity to the RAF today.

• Trenchard's Blast-The contrast between swift prototype and slow production worries British defense planners. Marshal of the Air Force Lord Trenchard was outspoken in his criticism of the situation this summer, and touched off a bout of soulsearching within the industry. Britons wonder whether they are rich enough to support a major peacetime aircraft production programeven with substantial U.S. aid.

Despite the injection of 60,000 new workers into the industry in the past two years, monthly production of military planes is about the same as it was two years ago. Despite granting the new fighters and bombers super-priority rights for men and materials, two-thirds of the aircraft delivered each month are

obsolescent varieties.

Despite the big things Britain is doing with civil jet planes (page 158). hardly any British aircraft factory, civil or military, operates more than a single work shift, except in a few-key tooling operations. Yet thanks in part to American aid, most military plants are tooled up for two or three shifts.

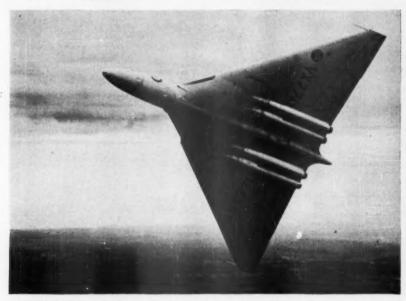
This production capacity, to be sure, is healthy as a ready reserve for war, well worth the U.S. investment. But from the British point of view, current production rates are inefficient. From the Western point of view, they are dangerously delaying the time when defense commitments can be met.

• Orders Lag-The production lag can be largely put down to the failure of



with a 727.6 mph performance over England. But one fast fighter doesn't make an air force.

# **But Laggard Production**



FLYING TRIANGLE, the four-jet Avro Vulcan bomber, claims to fly faster, higher, and farther than any other bomber in the world. The drawback: Britain has only two of them.

the government to place orders in time or in adequate volume.

Part of the production problem is the fact that much of the RAF fighter program is keyed to U.S. financial help. Washington has sent (1) 6,000 machine tools; (2) completed aircraft to fill in until British production caught up; and (3) offshore procurement orders to finance volume orders placed by the British government. However, these offshore orders usually don't represent any new production commitments by the British. Washington either picks up the check for orders already placed or those minimum contracts the British would have to make anyway.

Where Anglo-American action has

been delayed, results are slow. Thus the two key RAF fighters, the Hunter and the Swift, got bogged down because London waited to find out which one the U.S. would support under offshore procurement. Finally, last winter, Washington decided to buy 450 Hunters in the United Kingdom and help finance production of 417 more in the Netherlands. Only then were important orders placed.

• Obsolescence-Certainly the problem of getting technical agreement on a design is a tough process. Today most airmen regard any plane going into production as already obsolescent. It's hard enough getting agreement to freeze a design in one air force, let



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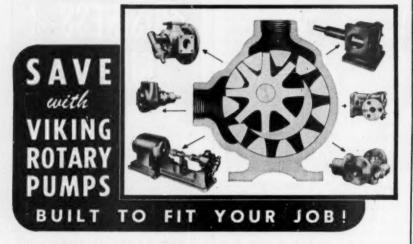
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alone two. But in the case of the Hunter and Swift, designs are frozen now and there's a better chance of meeting peak delivery schedules by summer, 1955.

Where Anglo-American action was taken early and decisively, production has soared. Thus Rolls Royce, whose Avon series of jet engines powers a large part of the RAF, is easily the best producer in Britain. A large chunk of the 6,000 U.S. machine tools went into the Avon program, and now you have twice as many engines available as airframes to put them on.

Meanwhile, the RAF's bomber program—with little direct infusion of U.S. help—has suffered badly. Specifications for the Valiant four-jet bomber were laid down in 1948; the plane won't be in service before 1955. In the interim the delta-wing Vulcan and the crescent-wing Victor prototypes have come along—both with significant advances.

• Bombers—Now it appears that Britain's Air Council has decided that bombers must be pushed hard. Britons seem to agree with the U.S. Strategic Air Command that the ability to deliver fission and fusion bombs to Russia is the greatest deterrent against war. And Britons believe their three "V's" make a substantially different contribution than U.S. strategic bombers: They are smaller, fly faster and higher.

The British bomber builders have

none of the tools needed to turn out their planes fast. Big aircraft produc-tion tools are available only in the U.S., and so far the bomber men haven't persuaded London to buy them. When the U.S. Congress O.K.'s spending hundreds of millions of dollars for big presses alone there is both envy and worry in the British industry. · Tools-So far, the British machine tool industry hasn't altered its conservative ways in response to the planemakers' pleas. Even commonplaée U.S. tools-like the Hufford stretchpresses-have no British counterpart. save where London has bought them in the U.S. And the government has been sparing in its buying. There are probably more Huffords in one big U.S. airplane factory than in all of Britain.

Finally, Professor J. V. Connolly of the College of Aeronautics in London argues that the real root of the problem is men, not machines. It's the age-old problem of British industry: Everybody wants to be a designer, nobody wants to be a producer. Given a supply of high-quality production men, Connolly thinks the machines will come. The trouble is that production engineering courses at British technical schools are way undersubscribed, and hardly 20 engineers with postgraduate training are fed into the entire aircraft industry in any given year.



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#### What Goes On Here?



by Clarence Wright KIPLINGER STAFF EDITOR

Do you believe everything you're told? Of course not. In your daily life, you soon spot the phonies, and the phony talk. But when it comes to Washington, you may not know people well enough to figure out what's true, what's propaganda.

That's why your Washington reporter can't merely report what he's told, but must sift it and weigh it and get the facts out of it.

Take phonies. We recently pointed a finger at one in a defense agency. The top powers were offended; threatened to keep me, as a reporter, out of the agency. But three months later, their number-one man congratulated us on spotting the phony long before he did.

In Washington, language too some-times gets a little phony. A lot of "governmentese" comes out of official typewriters. But after 20 years of reporting you know how to read between the lines and see that words such as "gross national product" and "reinflation" and "dis-inflation" simply add up to "business outlook". Technicians write for technicians; we write for businessmen. Once a year, for example, we take the findings of demographers and show the businessman just what they mean to him. The population experts are delighted, naturally, because we get their technical stuff across -intelligibly-to a wider audience.

One of the main reasons our job is fun is that we aren't obligated to anybodygovernment officials, congressmen, advertisers-not anybody. We grind nobody's axe, not even the businessman's. We write what we think and believe to be true. Businessmen seem to approve. Many have been with us for nearly thirty years. In turn, we recognize our responsibility to them . . . a responsibility we carry through by doing our level best to be right.

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### Tire Fight

American-owned tire factory is caught in squeeze play by 50% labor-owned factory in Israel.

A "collective" tire factory and a "capitalist" tire factory have collided in Israel. The fracas proves that the orderly development of foreign investment can get badly balled up-even in a nation that welcomes outside capital with open arms.

The two contenders are General Tire & Rubber Co. of Israel, whose \$2-million-plus plant has been heralded as one of the country's most important foreign investments, and Alliance Tire & Rubber Co., 50% owned by Histadrut, the all-powerful Israeli labor organization. For years, the two have been struggling in a country whose market can support only one.

· Squeeze Play-Over the past few weeks, Histadrut has been putting mounting pressure on the Israeli government to wipe out controls on tire and tube sales. Behind the move is the fact that Histadrut owns half the nation's vehicles and controls 75% of all Israeli road transport. Its officials say that if tire controls are lifted, Histadrut vehicles will use Alliance tires onlywhich they term the production of a "collective" as opposed to "capitalist" General. Histadrut people sometimes fail to mention that Alliance is 50% owned by 600 Americans, including the Dayton Rubber Co., capitalists all.

If Histadrut gets its way, on-the-spot observers go as far as to say that General may one day pick up its plant and move out. Company officials in Akron, Ohio, say that's too dismal a reading of the Israeli situation, but it's clear they are worried.

• Root of Trouble-Trouble started back in 1949, when Histadrut found it could not purchase a majority interest in General's Israeli operation (Palestine Economic Corp., New York, is majority stock owner, with General of Akron in a minority position). So the labor union joined with some other U.S. investors and formed Alliance. The government gave a reluctant O.K. to the second tire plant-though the market didn't warrant another.

General had a government promise of exclusive rights to the market: Alliance said it would concentrate on exports. The arrangement didn't work out; and both have been scrambling for scarce foreign exchange to finance raw material imports. Neither works at anything near capacity; sales are determined by government purchase permits, which split the available market.

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#### BUSINESS ABROAD BRIEFS

The sterling area's gold and dollar kitty, increasing steadily during the past year (BW-Sep.5'53,p122), rose another \$13-million last month. It now stands just a shade under \$2.5-billion. The gain was small, but it took place despite heavy nonrecurring dollar payments and dwindling U.S. aid.

Japanese jeeps will roll off the Nagoya assembly lines of Mitsubishi Heavy Industries, Ltd., before long. Last week Mitsubishi and Willys-Overland Export Co. signed a license agreement providing for use of Willys designs and parts; later Mitsubishi hopes to use 100% made-in-Japan components.

Cali is fast becoming Colombia's industrial boom town. Colombian affiliates of Celanese Corp.; Container Corp.; Firestone; U.S. Rubber; Quaker Oats; Cluett, Peabody; and nearly a half-dozen U.S. drug firms are in operation there. Latest opening: Sinclair & Valentine de Colombia, wholly owned subsidiary of the New York printing ink manufacturer.

Delivery dates at West Germany's Volkswagen auto works have been extended to eight months, thanks to rising demand in Europe and Africa. Director Heinz Nordhoff hopes to boost daily output to 1,000 cars soon. And Bonn Finance Minister Fritz Schaffer says categorically that the Volkswagen company will not be transferred to private ownership (BW-Jul.11'53, p106).

Adenauer's smashing election victory sent West German industrial shares rising merrily early this week, with optimistic investors buying heavily in steels and chemicals. Vereinigte Stahlwerke, the big steel combine, jumped from Deutschemarks 200 to DM 222; I. G. Farben moved from DM 96\\$ to DM 102\frac1. Frankfurt stockbrokers say foreign orders helped spark the rise.

Greece wants an oil refinery, is open to proposals from qualified investors. The Greeks have a 30,000 bbl. daily plant in mind, designed to handle the nation's domestic requirements before any exports, and are willing to put up 50% of the capital themselves.

# MEMO

TO: Management Committee

FROM: Safety Engineer

RE: Dangerous conditions in electrical system.

The safety of all plant employees is my responsibility. It involves continual check-up on all facilities which could contribute to dangerous conditions.

In the past few years, many steps have been taken to improve the physical plant and we have generally improved the safety record by enforcing greater use of safety devices on machines and tools.

However, we have recently had several near accidents which could have produced fatalities, caused by overloading electrical equipment. Investigation has brought to light several other hazards caused by obsolete electrical equipment. Poor lighting has apparently contributed to a number of accidents to personnel, as well

I recommend that a study be made at once to determine the cost and benefits of complete modernization of our electrical system throughout the plant. Preliminary consultation with our electrical engineer indicates that the cost of this modernization would probably be self-liquidating in terms of more efficient layout and reduction of down time.

S. E.



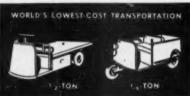
## DIVIDEND NOTICE

The Board of Directors of the Kearney & Trecker Corporation has declared a quarterly dividend of twentyfive (25<sup>¢</sup>) cents per share payable September 15, 1953 to the stockholders of record September 1, 1953.

Signed:
R. L. BISCHOFF
Secretary and Treasurer



Kearney & Trecker Corporation
Milwaukee 14, Wisconsin



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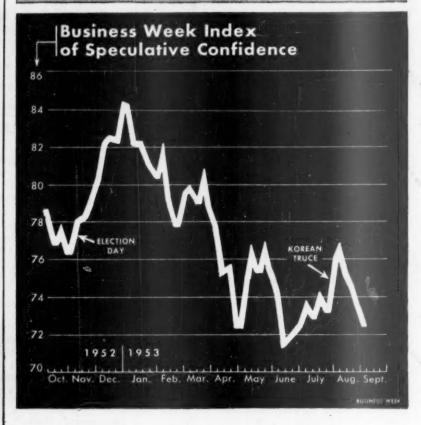
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See Clues on page 194

# THE MARKETS



# Stocks-Famine amid Plenty

Since early this year, stock prices have been dropping steadily despite extraordinarily high levels of business activity. That's reflected vividly in BUSINESS WEEK'S index of speculative confidence (above).

There are other thermometers for measuring the chills and fevers afflicting investors and traders in the market. The obvious one is the recognized stock market price indexes. Few people buy stock except when they are feeling at least a little chipper over the general outlook; and few start selling unless they are worried about the future. Hence their moods can logically be expected to be reflected in the indexes.

However, Business week has always felt the need for a more accurate, if still rough, measure of speculative confidence. It believes that the state of business activity must be taken into account, as well as the over-all trends of-the market. This is especially important when, as now, the two are moving in opposite directions.

• Different Methods—Hence, BUSINESS WEEK pursues the facts of speculative confidence by a different statistical route from the one generally taken. It's trend line is established by taking the ratio of Standard & Poor's 90-stock daily price index to its own weekly index of business activity.

On that basis, as the chart shows, speculative confidence right now is close to its postelection low. The steady fall of stock prices despite humming business means simply this: Many investors and traders think our present prosperity may be ephemeral. So they have been scrambling to as safe a spot as possible before and if the blow-off comes.

Of course, they may be wrong. But just the same it is silly for many Wall Street bulls to call their fears a phychiatric quirk, without any foundation in reality. Similarly, the bulls are unrealistic when they warn that we must be careful "not to talk ourselves into a first class depression."

• Clouds—Actually, there are definite storm clouds visible on the horizon. Standard & Poor's put it succinctly: "In the absence of some dynamic stimulant, the economy faces a readjustment. Production has been running above current needs for several months and, sooner or later, the excesses being created must be corrected."

No one knows for sure what sort of a readjustment lies ahead. Some economists look for nothing worse than a replica of the 1949 business decline. Others think it may be more serious, more like the short, but sharp recession of 1937-1938.

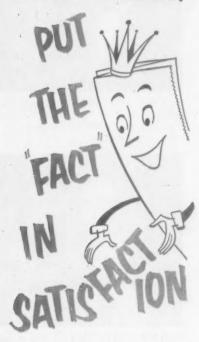
With this uncertainty, it is no mental quirk for so many investors and traders to be taking things easy in the market until they are at least assured that no bad storm is in the offing. They think it's just horse sense, even if the bulls do call it psychological. And their attitude is unlikely to change, at least unless the bulls are able to pull a really attractive rabbit out of their hat.

### How Korean Market Gains Have Contracted Lately

	Pra-				Korean M	larket Gains
	Korean		Market High	Recent	Maximum	Gain
Stock Group	Level	Level	Date	Level	Gain	None
Agricultural machinery	136.5	187.6	Oct. 1952	*127.8	37.4	-6.4%
Aircraft manufacturing	137.8	229.7	Mar. 1953	201.2	66.7	46.0
Air transport	250.1	402.4	Dec. 1951	*289.0	60.9	15.6
Automobile	186.7	263.1	Feb. 1953	*207.6	40.9	11.2
Auto parts, accessories	139.3	181.0	May 1953	*148.1	29.9	6.3
Auto trucks	101.6	149.0	Feb. 1951	108.9	46.7	7.2
Bituminous coal	303.6	494.0	Feb. 1953	*367.9	62.7	21.2
Building materials	140.6	172.7	May 1953	*152.7	22.8	8.6
Carpets, rugs	146.9	160.8	Feb. 1951	*106.8	9.5	-27.3
Chemicals	194.1	263.2	Dec. 1952	244.8	35.6	26.1
Confectionery	135.1	131.7	Oct. 1950	123.3	-2.5	-8.7
Containers-glass	113.6	148.3	Sept. 1951	118.7	30.5	4.5
Containers—metal	89.3	115.7	Aug. 1953	107.9	29.6	20.8
Copper	127.2	205.7	Jan. 1952	*143.3	61.7	12.7
Department stores	228.1	287.4	Sept. 1951	253.8	26.0	11.3
Distillers	357.3	#10.0				
Drugs—ethical	194.3	510.9 274.1	Oct. 1951	367.8	43.0	2.9
Drugs—proprietary, cosmetics	134.1	168.0	Aug. 1951	165.0	41.1	-15.1
Electrical equipment	126.9		Oct. 1951	145.0	25.3	8.1
Pertilizer	260.9	186.2 500.8	Aug. 1953 Oct. 1951	177.0 388.9	46.7	39.5
			Oct. 1931	300.9	92.0	49.1
Finance companies	129.5	167.8	Nov. 1952	147.0	29.6	13.5
5¢, 10¢, 81 stores	133.6	132.1	Oct. 1951	120.1	-1.1	-10.1
Food companies	146.2	165.5	Mar. 1953	159.9	13.2	9.4
Food chains	236.2	291.6	Aug. 1953	284.6	23.5	20.5
Gold mining (U. S.)	71.3	68.5	Jun. 1950	*56.5	-3.9	-20.8
Lead, zinc	89.9	150.0	Oct. 1951	*93.3	66.9	3.8
Leather	156.6	238.4	Jan. 1951	*164.7	52.2	5.2
Machine tools	129.1	224.6	Mar. 1953	193.0	74.0	49.5
Machinery	123.7	185.3	Mar. 1953	*161.6	49.8	30.6
Mail order, general chains	209.7	261.2	Dec. 1952	*239.7	24.6	14.3
Metal fabricating	112.4	193.5	Mar. 1953	175.8	72.2	56.4
Mining, smelting	82.5	148.2	Jan. 1952	*109.2	79.6	32.4
Motion pictures	140.5	182.9	Oct. 1951	147.9	30.2	5.3
Natural gas	201.7	245.7	Mar. 1953	219.9	21.8	9.0
Office, business equipment	207.1	272.7	Mar. 1953	247.6	31.7	19.6
Oil—crude producers	346.4	847.3	Mar. 1952	*627.8	144.6	81.2
Oil-integrated companies	174.1	319.7	Jul. 1952	271.9	83.6	56.2
Paper	415.7	646.0	Mar. 1953	590.2	55.4	42.0
Printing, publishing	109.6	134.4	Feb. 1951	*107.1	22.6	-2.3
Railroads	102.5	187.0	Dec. 1952	*159.2	82.4	55.3
Railroad equipment	81.1	110.7	Jan. 1951	*97.2	36.5	19.9
Rayon	406.7	634.3	Sept. 1951	330.0	56.0	-18.9
Shipbuilding	177.7	286.1	Mar. 1953	231.5	61.0	30.3
Shipping	440.7	508.3	Jul. 1952	*527.3	38.0	19.7
Shoes	115.4	126.3	Mar. 1953	123.6	9.4	7.1
Soft drinks	130.3	116.8	Jan. 1951	102 1	10.1	24.6
Steel	173.0	236.5	Jan. 1951	102.1	-10.4	-21.6
Sugar	103.1	132.2	Feb. 1951	*90.2	36.7 28.2	4.7
Textile weavers	244.0	351.5	Feb. 1951	* *221.8	44.1	-12.5
Tires, rubber goods	235.9	540.6	Jan. 1953	*431.7	129.2	83.0
Tobacco	85.7	97.8	Aug. 1953	92.9	14.1	8.4
TV. electronics	241.3	331.2	Nov. 1952	*260.9	37.3	8.1
Utilities—holding companies	172.6	233.1	Mar. 1953	211.9	35.1	22.8
Utilities—operating companies	117.9	140.0	Mar. 1953	134.8	18.7	14.3
Vegetable oils	210.6	293.8	Aug. 1951	*166.0	39.5	-21.2
* affirmation reserves a second second second	-10.0	293.0	Hug. 1991	100.0	39.3	-21.2

DATA: STANDARD & POOR'S WEEKLY INDEXES (1935-1939 = 100). \*1953 low.

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### LABOR



WALTER REUTHER OF CIO: "Special interest groups" are "determined to reverse a trend of government for the people."



HARRY S. TRUMAN: "Union leaders have the responsibility of holding the gains labor has made . . . against reaction."



GEORGE MEANY OF AFL: "We have gone backwards"; Congress "failed to do the things vital to the people."



JAMES B. CAREY OF CIO: The Republicans have brought back "a government of profit . . . after 20 years."



GEORGE HARRISON OF AFL: "Suicidal tight-money policies" of the Administration threaten labor's interests.



JACK KROLL OF CIO: Labor must organize to elect a Congress willing to "give solid support to , , . liberal government."

# Labor Day, 1953:

Most leaders urge an end to labor's truce with G.O.P. A few call for more statesmanship.



DAVE BECK OF AFL: "The coming AFL convention [should] invite CIO and John L. Lewis to come into AFL."



JOHN L. LEWIS: Labor must "consummate organic unity"... for the economic, social, and political welfare of the people."



PRESIDENT EISENHOWER: "Workers are . . . beyond political subservience . . . a bulwark of free government."

# White-collar Gains Keep Pace

Plant offices share in production workers' gains, both management and union surveys show; but they differ on what this means for office unionization.

Most white-collar workers seem to be doing all right these days, from a salary standpoint. Nothing much is heard about salary adjustments for them-hurly-burly bargaining over production workers' wages grabs most attention—but employees in offices of manufacturing companies are keeping pace with plant workers' wage and fringe gains.

• Two Surveys—Two recent surveys one by a management organization, one by a major industrial union—indicate this trend. Both are receiving wide consideration in management circles now.

Associated Industries of Cleveland, a management research organization, checked member companies and found that in Cleveland "carnings of the production worker have jumped about 4% in 1953 and...income (of white-collar employees) has gone up in about the same amount."

• The United Steelworkers of America (CIO), which has about 30,000 steel industry white-collarites in its 1.2-million membership, announced about the same time the results of a survey of office employees in its industry. This showed that since 1941 "wages and fringe benefits of office and clerical personnel have kept pace with those enjoyed by production and maintenance men."

Both management organization and union cited the very obvious reason: The majority of companies now simply translate a negotiated cents-per-hour wage increase into a by-the-week increase figure, and add it to salaries. In much the same way, fringe increases—insurance, pensions, etc.—are also extended to the office and management personnel.

• Fair to All—According to Associated Industries of Cleveland, this policy is consistent with a management determination to be "fair toward all, organized or not." AIC notes that the fact that white-collarites automatically get whatever the production workers' unions win in bargaining is "a fundamental reason for labor's failure to make appreciable gains in organizing the clerical people in manufacturing."

AIC's specific findings on salaryadjustment policies show major differences only on:

Extent of coverage—whether a percentage increase should go only to nonexempt salaried people (those who come under the wage-hour law) or to both the nonexempt and exempt employees (the latter not under the wage-hour law, usually because of administrative or managerial duties, or their salary level).

The cut-off point for percentage increases, whether at \$7,500 a year salaries, or perhaps \$12,000. AIC reported that some companies give smaller percentage increases in higher salary brackets, but commented that a raise comparable to that of production workers is usually given in "general" brackets in which most office workers are found.

• USW Survey—The United Steelworkers' survey was not on management policies and practices, but on the results—from the white-collar workers' standpoint. Its analysis came mostly from a study of gains since 1940 in

U. S. Steel Co. subsidiaries.

According to the union, a typical job at the lower end of the salary schedule paid \$58 a month in 1941 and now pays \$241 a month, an increase of nearly \$200 a month in 12 years. Gains in other salary brackets run even higher, the union says. USW lists the top salary in the 17 salary classifications established under its contracts as a guaranteed \$562 a month for senior-grade design draftsmen.

Steel white-collarites also have made "substantial" fringe gains—including USW-negotiated \$100 monthly pensions at 65 after 25 years' service—according to the union survey.

 Motivations—Unquestionably, more than just curiosity lay behind the AIC and union surveys of salary trends and policies; the motivation stemmed from the increasing interest in white-collar unionization.

AIC's purpose seems to be a demonstration that "organized or not" office workers get proportionate increases whenever unions win a raise in plants.

AIC's purpose, on the other hand, is tied in with its efforts to recruit more white-collarites. The steel union—along with all other major CIO industrial unions—is looking for new sources for membership gains, since unionization in the mills is near the saturation point. One source is the mill offices.

While USW currently bargains for some white-collarites employed by virtually every basic-steel company and numerous large fabricators, it hasn't by any means really tapped the salaried-worker pool of potential members.

It's going out, now, to do this. The survey of white-collar increases-for which USW claims credit—is intended to add ammunition for the drive.

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DURKIN AND AIDES Mashburn (seated, left) and (standing, left to right) Miller, Dobson, and Siciliano study job assignments. With Assistant Secretary Hobart, they are...

# New Lineup in Labor Dept.

With all key jobs filled at last, Secretary Durkin moves to tighten the department, make it a one-policy agency.

Harrison M. Hobart, an assistant grand chief engineer of the Brotherhood of Locomotive Engineers, moved into the Dept. of Labor last week. At last after eight months of trying to fit right men into top-level jobs, Secretary of Labor Martin Durkin had a full staff.

Immediately, Durkin got on with a project he had been planning—and reluctantly postponing—since last January. He issued a series of orders intended, he announced, to "improve coordination and control of policy" within his department. The orders:

• Set up a Secretary's Policy Committee—a departmental cabinet—which will handle over-all policy problems. Members will be the Secretary of Labor; Under Secretary Lloyd A. Mashburn; the four assistant secretaries—H. M. Hobart, Spencer Miller, Jr., James E. Dobson, and Rocco C. Siciliano; and Solicitor Stuart Rothman.

• Set up lines of authority for the four assistant secretaries—assigning to each the responsibility of seeing that

departmental policy is carried out in subordinate bureaus and offices under his supervision.

• Established a new agency within the department, the Office of Manpower Administration, which will "develop plans, policies, and programs for meeting defense manpower requirements, and will supervise, direct, and coordinate the defense manpower activities of the department." Assistant Secretary Siciliano will supervise the new OMA.

Durkin hopes to accomplish at least two things through the reorganization. First, he hopes to make the department an integrated, one-policy agency, with a clearly defined chain of command from bureau chiefs to assistant secretaries to Durkin himself. Second, and importantly, Durkin wants to delegate authority to top aides so that he can devote more time to the White House and Congress—where major decisions affecting labor are made.

· Larger Role-In view of the growing

respect for Durkin in Washington, this is significant; it may mean Durkin is clearing himself for a far more important policy-making role than he has taken so far in the Eisenhower Administration.

In delegating authority, Durkin made the following assignments:

Siciliano, the management member of Durkin's staff, will supervise bureaus with employment and manpower functions—the new OMA and Bureaus of Employment Security, Apprenticeship, and Veterans' Re-employment Rights.

Miller will be responsible for all international activities that come under the Dept. of Labor's jurisdiction, including the Office of International Labor Affairs.

Hobart will have under him all matters pertaining to standards and statistics, and will supervise the Bureaus of Labor Statistics, Employees' Compensation, and Labor Standards; the Women's Bureau; the Wage and Hour and Public Contracts Division, and the Employees' Compensation Appeals Board.

Dobson, the administrative assistant, will supervise the Office of Budget and Management and the departmental library. Solicitor Rothman and the department's information and personnel offices will continue reporting to Durkin and Under-Secretary Mashburn.

# Electrical Unions Square Off

The left-wing UE and its rival, CIO's IUE, both have big conventions coming up. UE will concentrate on clearing up some internal problems, IUE on plans for more militants.

The left-wing United Electrical, Radio & Machine Workers (ex-CIO) will open its 18th annual convention in Chicago Sept. 21, faced by mounting problems. A week later its rival, CIO's International Union of Electrical Workers, will open its fifth annual convention in Montreal, full of new optimism.

IUE is confident that its rival, consistently strong since its expulsion from CIO in 1949, is beginning to slip. UE, of course, denies it. However, it now seems more vulnerable than at any other time since 1949. It's vulnerable:

On the union front, due to a series of recent setbacks in the Westinghouse Electric Corp. plant system and in farm equipment plants.

Legally, now that the Justice Dept., under Attorney General Herbert Brownell, is getting set for a close look at Communists in unions. Department investigators have UE high on their list of unions suspected of strong leftist leanings. Not long ago the business agent of a big UE local in Philadelphia was arrested by the Federal Bureau of Investigation and charged with conspiracy to overthrow the government.

• Losing Strength—The two are per-

• Losing Strength—The two are perhaps connected. The Communist issue ("red-baiting," UE called it) was raised when a large UE local in the Newark meter plant of Westinghouse Corp. voted to shift intact to IUE, and in other scattered defections from the leftist union. If the government steps up its interest in UE's political orientation, then further shifts from UE into its rival may follow.

The Newark Westinghouse local's bolt from UE (BW-Jul.25'53,p59) took away 2,800 members-and was al-

most followed by a more important shift of 7,500 Westinghouse workers in South Philadelphia from UE to IUE. The two transfers were supposed to have come on the same time schedule. The Newark group jumped the gun; UE, thus forewarned, staved off the Philadelphia walkout—at least temporarily.

Since then, UE has ousted "treacherous leaders" involved in the Philadelphia case, and has done quick campaigning to solidify its position among rank-and-file workers. It now claims that 89% of the Philadelphia group is "safe" for UE. Despite that, IUE and AFL's International Assn. of Machinists are petitioning for a National Labor Relations Board representation election at the Philadelphia plant.

• Leaders—Meanwhile, IUE has won over Edward Matthews, for 11 years permanent secretary of UE's Westinghouse Conference Board, and some lesser leaders from UE. The CIO is counting on these men to help crumble UE's Westinghouse holdings—where, according to Matthews, the leftist union now represents only about 15,000 workers, hardly a third as many as IUE claims. At one time UE and IUE divided Westinghouse workers just about evenly between them.

Matthews isn't the only major leader lost by UE in recent weeks. James Price, president of the Philadelphia district council of 13 locals, quit UE to join the staff of the International Assn. of Machinists (AFL). Price, who had held the district presidency since 1946, said UE's strength in the area has been dropping fast and is down from 40,000 to about 13,000.

Why quit UE? The former officials



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explain they resigned because top UE leaders haven't lived up to promises that Communists would be ousted from positions of influence, and because Communist "behind-the-scenes policy" has been reflected in UE tactics not "in the best interests of the thousands of UE members."

UE has a different explanation; it charges the former officials were "bought off" by rival unions.

• Other Problems—These are just a few of the problems facing UE convention delegates. Members of locals representing 3,300 workers in International Harvester Co.'s East Moline (III.) plant and 800 in John Deere Co.'s Moline plant have voted to quit UE's Farm Equipment Workers and to affiliate with the United Auto Workers (CIO). UAW is petitioning for NLRB elections in the plants and expects to oust the Farm Equipment Workers.

Members of another UE local at I-H's Rock Island (III.) Farmall Works also voted to quit UE, and members of at least four other locals—including two in I-H plants—either are in the process of disaffiliating or are talking of doing it.

UE may retake some, or all, of these groups in NLRB elections; it has defeated a number of IUE efforts to take over locals, and beat off challenges by UAW, IAM, and in at least one instance CIO's United Steelworkers. But a continuing defensive action saps a union's strength.

• Aggressor—Not that UE is likely to quit forays into enemy camps. It recently asked for an NLRB election at General Electric Co.'s Lynn (Mass.) plant, biggest bargaining unit under IUE and for several years a trouble spot for IUE's top leaders. Lynn workers twice voted down IUE strike proposals, in 1952 and again this year, the last time booing top IUE leaders. UE moved in fast to try to capitalize on this apparent disaffection.

Generally, the two unions' holdings in the big General Electric chain plants are about the same now as when they split up the plants in a series of hard-fought representation votes beginning in 1950. However, IUE made a potentially major gain when it won bargaining rights at GE's new Louisville (Ky.) plant, piling up a seven-to-one victory over UE. About 2,000 are now employed at the Louisville works, but the number is expected to rise a good deal above that.

UE has made consistent small gains (perhaps more than IUE) through organizing work so far this year in nonunion plants—the latest, that of Mica Insulating Co. at Schenectady, N. Y., where 600 employees voted to be represented by UE. The union's officers announced some time ago that more than 13,000 new members were brought into UE in the first half of 1953 in scattered NLRB elections.

• Strategy—Faced with disaffections and the certainty of increased raids, UE will concentrate on tightening its leadership and solidifying its ranks at its coming convention. IUE will be doing the same thing a week later, but with aggressive rather than defensive purposes.

#### LABOR BRIEFS

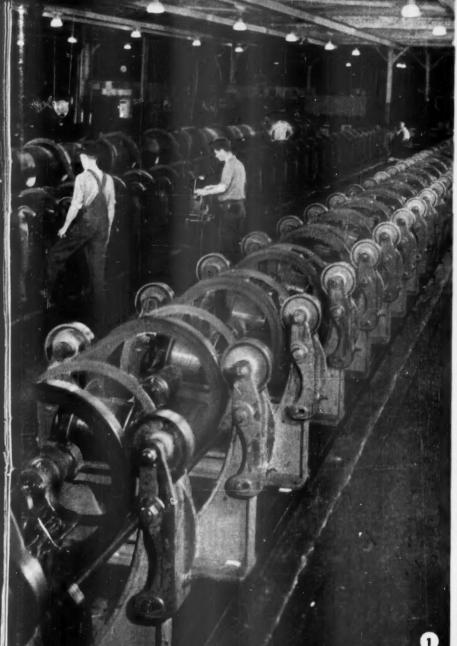
Strike threat by the Order of Railroad Conductors against the nation's railroads ended last week when ORC was assured its demand for pay scaled to the weight of locomotives will be handled "promptly to a conclusion."

Truck strike that tied up construction work in New York City for two months –idling 100,000 craftsmen—ended last week in an agreement to arbitrate the contract dispute (BW—Aug.1'53,p88). Teamsters' president Dave Beck ordered dissension-torn Local 282 to end its long walkout or face expulsion by the international union.

New contract between National Sugar Refining Co.'s Philadelphia division and CIO's packinghouse workers continues their guaranteed-wage plan, in effect for a year (BW-Mar.15'52, p168). It now assures 2,000 hours' pay annually for workers with a year's seniority. New pact also hikes pay 10¢ an hour.

Jobless pay amounting to \$300,000 will go to 1,600 employees of Duplan Corp. in three Pennsylvania plants, under a ruling last week by the State Unemployment Compensation Board of Review. The board held that an AFL "strike" early this year was actually a Duplan "lockout" to enforce a wagecut demand—so idled workers are due seven weeks' unemployment pay. Duplan isn't expected to appeal; it announced it doesn't want to jeopardize "much improved" relations with the union.

The Pictures—Cal-Pictures—56; Hayris & Ewing—170 (middle lt.); I.N.F.—27 (rt.), 70, 71, 170 (top rt.), (bot. rt.); Bob Isear—Cover, 34, 63, 90, 92, 93; Krambles Collection—110; Herb Kratovil—170, (middle ctr.), 182, 183, 184; Jay-Leviton—102, 103, 106; Ransdal Photos—170 (bot. lt.); U. P.—161, 170 (bot. ctr.); Wide World—83, 84, 160 (lt.), 170 (top ctr.), (middle rt.) 172; Dick Wolters—170 (top lt.).







(Color photos by d'Arazien)

STRANDING MACHINES (J&L's Wire Rope Plant, Muncy, Pa.) twist from 7 to 37 wires at one time into strands of pre-determined construction.
 WIRE ROPE CLOSING MACHINE. Here strands are assembled and closed into finished wire rope.
 WIRE ROPE STOCKS. Every foot of J&L Wire Rope has been quality-controlled from ore to finished product.

WIRE ROPE...
Steel Sinews
for Industry's
Tough Jobs

Wire Rope . . . strong, dependable, flexible . . . is at work on many of industry's toughest jobs. On drilling rigs, construction equipment . . . in mills, mines, lumber camps . . . on cranes, docks and ocean liners . . . wire rope is the sinew that moves tons of equipment and raw materials.

Safety and dependability are essential in wire rope performance. That's why quality is the *first* consideration in the manufacture of J&L wire rope.

Jones & Laughlin has pioneered in the development of new and better wire ropes for specific applications.

The two newest J&L wire ropes, already in wide use in oil and gas well drilling, are PlastiKore, which has a core of solid plastic, and SpringKore, whose core is a coiled steel spring.

Wherever wire rope is used, the name of J&L represents dependability . . . long service life . . . low operating cost.

JONES & LAUGHLIN STEEL CORPORATION



DUTCH NITROGEN cooks here at the Mckog Works in Ymuiden, Holland. Netherlandsexported nitrogen brings \$10 million to the tulip land as domestic ammonium nitrate continues in short supply. So, too, is the CPI export market growing fatter and fatter—currently estimated at \$2.2 billion.



AEROSOL UMBRELLA in the making here, as John Q. Public sprays his fedora with one of the new water repellents. This is the latest fast-moving home specialty, as more and more chemical processing output goes into the lucrative consumer market. Water-repellent aerosols hit \$1½ million sales last year and makers are rubbing hands at a minimum \$5 million yearly potential.

# Dutch nitrogen, aerosol umbrella, animated orlon,

ANIMATED ORION is an apt tag for the new DuPont merchandising show using menswear puppets. With a capital investment of close to half a billion dollars, synthetic fiber makers are out to sell their heads off. And in the meantime, the growing process industries keep expanding capacity as synthetics continue to replace natural materials. Total building bill for the entire field last year —\$7.4 billion.





ALERT MANAGEMENT chooses up sides on the tariff question. Here's Benzol Products' Executive Vice-President, Fred Dehls, who speaks up for extension of Reciprocal Trade and new amendments to the basic tariff law. Key process industries' executives are divided on the issue and CHEMICAL WEEK gives equal attention to all sides. As Mr. Dehls says, "I like CW because it presents all the facts on the significant chemical process news and developments. What's more, it's written in a way that makes for fast reading and complete understanding."

Spending stays high in the Chemical Process Industries . . . for synthetic fibers, packaging, consumer product development . . . for new plants, equipment, materials and services. It's an evergrowing market where incessant research brings fresh discoveries that almost overnight become the basis for new and completely different industries. And in this swiftly expanding field, executives depend on Chemical Week for the clear perspective so essential to business planning.

CHEMICAL WEEK is written for business-minded men in administration, distribution, production and research. They're top-ranking planners, looking for new ideas to adapt to their own operations... machinery, materials and methods for more profitable processing. And when purchase plans are in the making they want product information in the most convenient form available. That's why your advertising belongs in Chemical Week... it's process management's own magazine.

# alert management, and ... Chemical Week

in the chemical process industries . . . it's management's own magazine

# \*"Industrial Fore-Site" Play a Part in Your Future Growth?

\*"Industrial Fore-Site"—A shrewd management quality that gets the jump on competition by choosing plant sites with superior economic advantages.

### Why "Industrial Fore-Site" Points to Southern Illinois



#### Power

Millions of new kw. capacity is available for industrial uses.



#### Fue

One of the leading coal, oil and gas producing regions in the nation.



#### Water

Unlimited water supply available from the Ohio and Mississippi Rivers.



#### **Labor Relations**

Generally good. Labor force of 400,000 in area. Heavy unemployment.



#### **Natural Resources**

4,720,000 acres of timber. Limestone, other rocks, red clays and minerals.



#### Transportation

Region served by eleven railroads and by river barge lines.

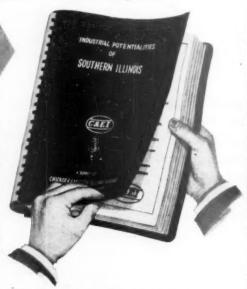
# Write for this 323-page Guide to "Industrial Fore-Site"

The most detailed possible site survey data about Southern Illinois

- Documented ratios of industrial costs to factors for plant location analysis.
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- Detailed charts of energy consumption and rates for quickly determining electrical power costs for any type plant in the area.
- A directory of 3,500 businesses and industries in the region.

Your Consulting Engineering Firm will find this information of great value in analyzing Southern Illinois in relation to your needs.

Write in confidence to: Chief Economist,



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## PERSONAL BUSINESS

BUSINESS WEEK SEPT. 12, 1953



Will the new "anti-enzyme" dentifrices help prevent tooth decay? You'll have to wait a while for the answer. American Dental Assn. says "there is no acceptable evidence" yet to prove it.

Such evidence may develop. If it does, says the ADA Journal, it will be one of the few times in the "long and unhappy history of miracle dentifrices" that the results have lived up to the preliminary claims.

Even if anti-enzymes should measure up to expectations, your dental worries will still be far from over. For one thing, not all tooth trouble is caused by caries (decay). For another, your teeth will probably decay anyway—although perhaps at a slower rate.

Best antidecay substance found so far is the element flourine. Tiny amounts added to drinking water cut decay in children's teeth by two thirds. (Some dental authorities are leery about flourine, however, because they aren't sure what side effects—if any—it has.)

Flourine won't help adults much. It combines with enamel forming cells—and most enamel is built during the first eight years of life.

But note this: Right now something like 90% of U.S. children develop cavities between the ages of three and six years. And 50% should have their teeth straightened.

How a child's baby teeth thrive will determine the fate of his permanent teeth. Among other things, they control formation of the jaw for the permanent teeth. Thus every child's first visit to the dentist should be at the age of three.

How can you keep your own teeth functioning properly longer? In general, you should still put your faith in (1) good professional dental care; (2) good oral hygiene at home; and (3) proper diet. Here are some major points to remember about each:

- It's still important to see your dentist regularly. He can spot trouble early. That can save you grief, money, and possibly your teeth.
- Brushing your teeth regularly—preferably after meals—keeps gums healthy, helps prevent tooth decay. Use any commercial dentifrice; all have a mild abrasive action that cuts tooth film, polishes enamel. (Brushing won't wear out enamel—it's the hardest substance in the human body.) Ammoniated toothpaste may be helpful in preventing decay. Some estimates indicate that it cuts decay by 8% to 10%.
- You're heading for trouble if your diet is too heavy in sugar and starch. Sugar produces an acid that attacks tooth enamel. (The main idea of anti-enzymes is to offset this effect.)

Don't overlook the importance of gums and other tooth-supporting structures. Anxiety and other forms of neurosis and emotional stress may upset the delicate hormonal balance necessary for healthy gums.

In fact, worry may speed up loss of your teeth by years. It tends to cause bruxism—the unconscious gnashing and grinding of teeth. This loosens teeth, leads to pyorrhea—and ultimately loss of teeth.

If you should lose all your teeth, you can get artificial dentures that look so much like your own teeth that they defy detection. It's in this field that dentistry has made its greatest strides recently.

## PERSONAL BUSINESS (Continued)

BUSINESS WEEK SEPT. 12, 1953 The secret is the use of a plastic material, methyl methacrylate, commonly known as acrylic. With it, dental technicians not only duplicate your teeth right down to the last ridge and shading; now they can duplicate your gum color and texture exactly.

Moreover, you usually don't have to wait, as in the old days, for several weeks between having your teeth pulled and getting your new plate. Dentists can make the denture (either full or partial) ahead of time, put it in as soon as they pull your teeth. That prevents structural changes in the cheeks and jaws.

Usually these dentures are designed so that they can be kept in the mouth at night. But they must be removed for cleaning. (Brush them over a washbowl half full of water. If they drop, they are less likely to break.)

Remember that mouth tissue changes. Dentures that fitted snugly a year ago may be loose now. A dentist can refit them easily.

Acrylic can also be used for making repairs on natural teeth—so that the work won't show. (Gold and "silver"—an amalgam of several metals—must still be used on biting surfaces, however; acrylic isn't hard enough.)

. If you're put in the spot of having to write a paid obituary notice for a friend or relative, keep in mind the friends of the deceased.

Don't add "please omit flowers" unless you really mean it.

A recent survey has shown that most people resent this because it shuts them out from paying tribute to a friend. Sending flowers is the only way they can find for a tangible expression of respect.

There's less resentment when you urge people to give the money to charity instead of sending flowers. However, not many people take the advice; charities get little money from this source.

Be sure to have your heating system checked over before cold weather sets in. If your furnace is old, it may need repairing—or even replacing.

Cracks and corrosion can be dangerous. Other deficiencies—such as warped or sprung doors—can spoil the draft. That cuts down efficiency, boosts fuel bills.

Have a good heating man determine whether the thermostat is in the right spot. It should be on an inside wall, away from heat sources such as lamps or television sets.

Starting next week you will be able to buy your wife a compact to go with her mink coat.

Volupte is bringing out a model three inches square with the top covered in ranch mink. The rest of the compact is made of gold-colored metal. Top stores throughout the U.S. will sell the item for \$17.50.

Treatment of high blood pressure in elderly patients has always been a tough medical problem. Potent hypotensive agents and nonsodium diets are generally too rigorous for the aged. Most victims must go untreated.

A drug called methium chloride may be the answer.

Tests on patients ranging from 65 to 90 years of age have shown it to be effective in relieving hypertension while having only mild side effects.

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# How Oxygen...and LINDE SERVICE\* HELPED PREVENT A MILL SHUTDOWN...



In a major steel plant, the bloom shear in a rolling mill was badly damaged. Repair time was estimated at six weeks. Meanwhile, the mill would be shut down.

The mill management called LINDE SERVICE for assistance in applying oxy-acetylene flame cutting as a replacement for the shear. Three emergency hot-cutting machines were constructed to LINDE design and specifications. Result? The mill was back in production within three days.

This "temporary" operation was in service three and a half months. During that time many thousands of tons of steel were rolled by a mill that would have been shut down if it weren't for oxygen . . . and an assist by LINDE SERVICE.

> If you use oxygen in your operations, LINDE SERVICE can mean dollar savings to you. Let us tell you more about it.

#### LINDE AIR PRODUCTS COMPANY

A Division of Union Carbide and Carbon Corporation
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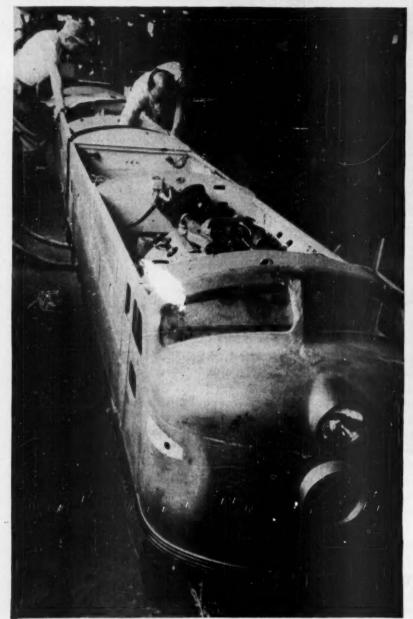
#### \* LINDE SERVICE

is the unique combination of research, engineering, and more than 40 years of accumulated know-how that is helping LINDE customers save money and improve production in their uses of oxygen and oxy-acetylene processes.



## COMPANIES





MAKING MIDGET VERSIONS of diesel locomotives and passenger cars is stock in trade of Miniature Train Co. in Rensselaer, Ind. It turns them out on a production line.

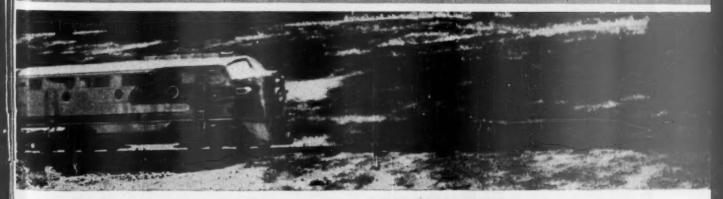


AMUSEMENT PARK MAGNETS, one train hauls 400,000 passengers a year.

## Pint-Sized

Drive around the outskirts or through the parks of almost any sizable American city today, and you'll probably see a junior-size railroad train hauling children and adults on a five- or ten-minute pleasure ride.

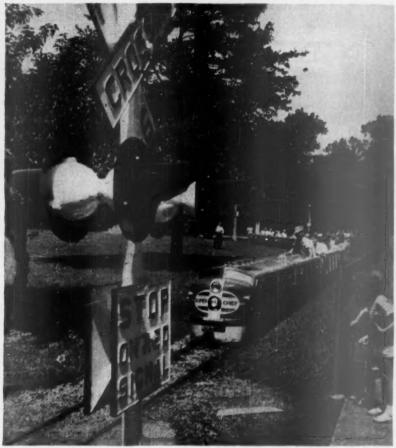
Take a closer look, and you'll realize that these trains are scale models of the real thing-complete with diesel







YOUNG AND OLD-55% children, 45% adults-ride 500 trains in U.S. and abroad.



CONTROL SIGNALS turned out by the company, along with trains, tracks, roadbed, and "stations" are authentic scale models of the real thing.

## Trains Show Plenty of Pull

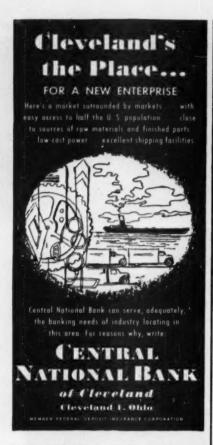
locomotive and passenger cars, tracks and roadbed, stations, even crossing lights and train control signals.

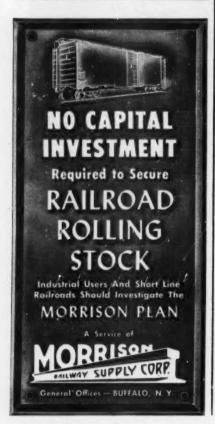
Chances are this equipment was produced in the plant of Miniature Train Co., Rensselaer, Ind.; Miniature Train is by all odds the biggest maker of the locomotives, cars, and signals used in amusement parks, public parks, and

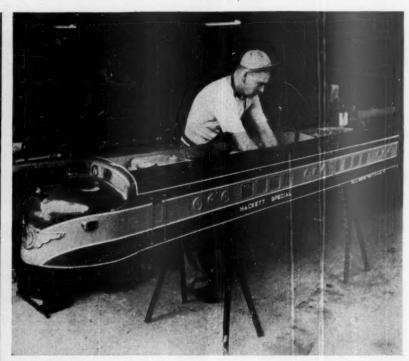
"kiddie lands" throughout the country.
• Full-size Sales—With a work force of 60 people, this one company is now making 75 to 100 trains a year, grossing \$500,000. That looks pretty miniature beside Pullman Inc.'s 1952 figure of over \$330-million for net sales and operating revenues, but the Indiana company's train business has only really

been rolling since the end of World War II. To date, the company has sold more than 500 of its scaled-down trains.

This week, it sold and shipped a locomotive and six cars (capacity 72 persons) to Guatemala City, to be used in an exposition opening in October. That's just the latest boost in Miniature







LOCOMOTIVE comes in two sizes. Larger can haul 20 cars, 240 adult passengers.

Train's export business; it already has trains running in Colombia, Guatemala, Mexico, Canada, Cuba, Hawaii, and South Africa.

• Idea Men—A lot of the steam behind the sales stems from the fact that the company is forever dreaming up new uses for its products. One idea was to set up the trains in drive-in theaters to keep the kiddies occupied—and pull in extra revenue—while customers wait for darkness to settle down so the film can start. A supermarket owner outside of Latham, N. Y., bought one to put outside his store, offer free rides as an inducement to shoppers with children.

Right now, Miniature Train's vicepresident and general manager, R. D. Robertson, is working with several shopping center planners. He wants them to design a train layout right into shopping center plans, sees the day when the trains may be used to carry customers from parking lots to the stores.

• How It Started—Growth of the miniature train business has been largely a postwar phenomenon, but Miniature Train Co. traces its history back to the early 1930s. It really started as a hobby, when P. A. Sturdevant of Chicago (now president and principal owner of the business) decided to build a train for his three-year-old son to ride around the yard at his home. For two years, he hammered away in his basement on a steam train.

The train was a huge success. Youngsters from blocks away flocked to ride it. Then, in 1932, Sturdevant induced Sears, Roebuck & Co. to install it in its State St. store in Chicago at Christmas time. The results were amazing; young-sters dragged their parents in to get a ride—and of course clamored for Christmas toys judiciously displayed near the train.

From this, Sturdevant developed one phase of his business that's still going strong. Today the company operates about 30 trains in stores over the country at Christmas, eight or ten at Easter. These trains alone haul a cargo of 1,250,000 a year.

In the late 1930s outdoor amusement park operators became interested in Sturdevant's trains. But this business had barely started when the war interfered.

• Real Thing-With the end of hostilities, Sturdevant and Robertson decided to concentrate on true scale-model trains. So they went to the Electro Motive Division of General Motors Corp., induced the people there to loan them working drawings of a diesel electric locomotive.

The first scale model was completed in June, 1946. Electro Motive executives hurried down to inspect it. "Our first locomotive from these plans won't be out for another four months," they explained, "and we'd like to see what the thing will look like." The model train, built to one-fifth the size of Electro Motive's F-7 diesel, is still running in Griffith Park, Los Angeles.

• Product Line—Miniature Train Co. makes two sizes of trains. The larger, or F-16, comes with one, two, or three power units. The two-unit locomotive



with TOCCO\* Induction Heating

PRODUCTION UP. When Thompson Products Ltd., St. Catharines, Ontario switched from conventional hardening methods to TOCCO Induction hardening production of their mine drill bits increased from 250 to 600 per hour!

COSTS DOWN. While production skyrocketed, costs fell—from \$7.46 per hundred parts to \$6.50, a savings of almost exactly one cent per part on the hardening operation alone.

OTHER ADVANTAGES. Moreover, additional savings resulted from not having to haul the forged drill bits to and from the heat-treat department. Cool, clean TOCCO fits right in the production line—takes only ¼ the space of rotary hearth furnace previously used.

In Canada or United States TOCCO Engineers are glad to survey your operations for similar cost-cutting results—no obligation, of course.

This Mine Drill
Bit is made of .90
carbon drill steel.
Cutting face is
hardened to 65 R. C.
Thompson also
uses TOCCO to
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forging these parts.

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NEW FREE
BULLETIN

THE OHIO CRANKSHAFT CO.
Dept. W-9, Cleveland 1, Ohio
Please send copy of "Typical Results of TOCCO Induction Hardening and Heat Treating".

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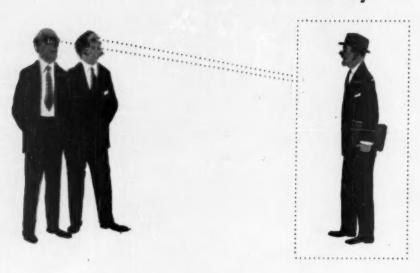
Address

City

Zone
State

## Shouldn't you and your partner

## see your lawyer



### about this?

What happen's when a business partner dies?

Well, for one thing, his widow or another member of his family may want to step into the business. This often makes for an awkward situation for the surviving partner. And should this result in liquidation under a forced sale, usually the value of everyone's interest is decreased.

In fact, about the only satisfactory way of continuing a business in such a crisis is through an agreement among partners for the purchase of a deceased partner's interest. This must be arranged in advance.

If you don't have such an agreement, shouldn't you and your partner (or partners) have your lawyer draw one up for you?

Then, let your Travelers agent or broker set up a Travelers Business Life Insurance plan to make sure you have the funds you need to make your agreement effective.

The cost of a Travelers Business Life Insurance plan is usually less than the bare interest you would have to pay on money borrowed to buy the share of a deceased partner.

Consult your lawyer and let your Travelers agent give you full information about Travelers Business Life Insurance. If you don't know the Travelers agent in your locality, write and we will gladly send you his name.



#### "... locomotives for both sizes of trains are powered with air-cooled gasoline engines..."

MINIATURE TRAINS starts on p. 182

can handle as many as 20 cars with a capacity of 240 adult passengers. The company doesn't make track or ties for these, but will help purchasers get the necessary equipment for the track layout desired. Layouts vary from 1,000 ft. to a mile or more of track.

A smaller train, the G-12, is built chiefly for carnival use. It is portable, has quickly demountable track sections. Robertson says a layout can be set up in 90 minutes, torn down in 60.

And the engine and cars are designed so a perfectly flat roadbed is not required; any relatively level plot of ground will do.

Locomotives for both sizes of trains are powered with air-cooled gasoline engines, 29 hp. in the big units, 6 hp. in the small ones. Only two controls are needed, one for throttle, one for brakes.

 Railroad Tie-in—Major railroads over the country jump at the chance of having their insignia and colors used on the trains. After they cooperate with train purchasers in setting up and maintaining track layouts.

taining track layouts.

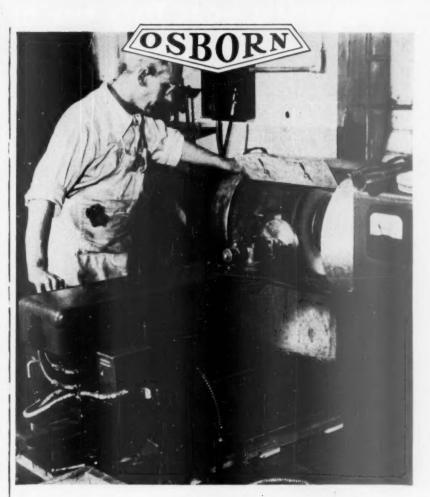
At Lincoln Park Zoo in Chicago, for instance, a Santa Fe RR surveyor supervised the grading of the roadbed, a railroad section gang laid the tracks, and a Santa Fe maintenance-of-way expert inspects the rails and ties every two weeks.

• Operator's View-Joseph F. Matarrese, who operates the Lincoln Park Scenic Ry., has a \$60,000 investment in this more-or-less typical layout. Half of this is for three engines and nine cars, the rest for tracks, station, fences, signals, and miscellaneous items.

His trains carry about 400,000 passengers a year-45% of them adults. Fare is 14¢ a ride including federal tax. He pays the Chicago Park District 25% of his gross for the privilege of operating the trains on park property. Liability insurance, wages, and maintenance take another 20%-which leaves him 45% of his gross profits before taxes.

On this basis Matarrese figures he's doing "quite all right." He plans to double the route next year—which will give passengers a 1½-mile ride, all of it through a pleasant wooded section of one of Chicago's most famous parks.

Matarrese's experience is not unusual. Many service clubs buy the trains for city parks, find they get their local investment back in one to two years. In such deals, a club usually agrees to



## Burr removal time cut 50% with push-button brushing

Power Brushing of transmission gears removes burrs and blends surface junctures automatically. It has paid off 5 ways for a large East Coast manufacturer of aircraft parts.

Their Osborn Brushing Machine produces a uniform required rounding of .030" to .090". It accommodates gears and splines of most types, internal and external. It is easy to adjust for small gear lots and production runs of from 15 to 5,000 pieces. It eliminates costly scrap. And less effective hand method time was cut almost 50%.

Production bottlenecks and ineffective finishing departments in your plant can be reduced, often eliminated, with Osborn power brushing methods.

Find out how you can cut your costs . . . improve your workmanship. For new bulletin, Automatic Deburring, call in your nearby Osborn Brushing Analyst for complete information, or write The Osborn Manufacturing Company, Dept. A-19, 5401 Hamilton Avenue, Cleveland 14, Ohio.



OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES



1. Permanent Magnet 2. DC

DC
 60 Cycle AC
 400 Cycle, 1 Phase

FAN AND BLOWER MOTORS Permanent Magnet

AIRCRAFT ACTUATORS

1. Rotary

Q 1953

JOHN OSTER MANUFACTURING COMPANY AVIATION DIVISION RACINE WISCONSIN

## How do YOU handle

5. 400 Cycle, 2 Phase 6. 400 Cycle, 3 Phase 7. 50 — 1600 Cycle, Variable Frequency

400 Cycle, 2 Phase 400 Cycle, 3 Phase 7, 50 — 1600 Cycle, Variable Frequency

2. Linear

turn the railroad over to the municipality after it has reaped its capital in-

One outfit operates several railways. This is Swope Railways Co., which runs trains on a lease arrangement in public parks in Los Angeles, Cleveland, Kansas City, and San Diego. Its trains carry better than 2-million passengers a vear.

• Plans-General manager Robertson recognizes that some day the market for miniature trains will be saturated, but he doesn't expect that to happen very soon.

"We thought it would happen years ago when most amusement parks got trains," he says. "Then along came the 'kiddie lands'; and a whole new market was opened up. Maybe something else like that will happen again."

Nevertheless, company engineers and designers already are at new types of entertainment equipment, against the day when demand for miniature trains begins to slacken. Robertson won't tell what they are, except that there will be other kinds of rides for children and adults



#### High-tailing It

Glenn L. Martin Co. of Baltimore applied this unorthodox tail assembly to its newest version of the Navy's Marlin flying boat. The stabilizer is installed at the top of the vertical fin instead of at the base. Martin calls it a "T" tail. The prototype of the new line of Marlin antisubmarine bomber is being flight tested. So far, Martin says, the new tail design appears more efficient than conventional arrangements. Horizontal surfaces can be smaller to do the same work. This cuts down on both weight and aerodynamic drag. The stabilizer is also up out of the way of spray in takeoffs and landings. The Marlin is powered by a pair of turbo Cyclone Wright engines.



Every state in the Union boasts one hotel that's head and shoulders above all others. In Maryland, it's Baltimore's Lord Baltimore Hotel.

TRAVEL EXPENSES??? Commercial Solvents, Diamond Alkali. Binney & Smith, scores of leading corporations, for years have used TRAVELETTERS because they ELIMINATE expense checks IMPROVE expense procedure **LESSEN** internal costs **CONTROL** travel expenses **INCREASE** productive time MINIMIZE cash advances You'll be amazed at the advantages your company and traveling person-nel will enjoy by using TRAVELETTERS! Write for information. TRAVELETTER CORPORATION Since 1894 GREENWICH, CONN.

WHY IT PAYS TO BUY STEEL FROM WAREHOUSE



You don't waste productive space storing steel!

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- · LOWER INVENTORY COSTS
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#### Secretaries . . .

. . . marry and retire.

But they can still work under
the Trattner system.

Capable secretaries are in great demand-especially as brides.

Now a flourishing business is making it possible for them to keep house—and yet keep up their secretarial work.

Personnel people say the shortage of secretaries is as bad now as any time during the war. Moreover, surveys show that the average secretary retires to housekeeping after only about four years in an office.

Three years ago, Robert E. Trattner of Indianapolis got the idea that a tape recorder might be the link between the businessman who was short of secretarial help and the ex-secretary who would like to earn money on her evenings and weekends. Not quite by coincidence, Trattner is a dealer in Revere tape recorders.

• Rallying Round—Trattner decided to try his idea in Indianapolis, and he ran a small classified ad seeking secretaries interested in working at home. He was deluged by 600 replies. Next, he tried lining up businessmen who would dictate into tape recorders and have extramural secretaries type their letters and reports overnight. Again the idea

With so many ex-secretaries to choose from, Trattner was able to select those most experienced and best able to serve. His staff, now expanded to 400 secretaries in a dozen cities, averages seven years of office experience. The girls are mostly between 30 and 40 years old, with two or three children. They work 15 to 18 hours a week and average between \$25 and \$30.

• Branching Out—Trattner restricted himself to the Indianapolis business until he had worked out all the bugs in his idea. Then he went national.

In the past five months, Trattner has signed agreements to license operators of his system in 15 other cities. He receives a license fee that varies from city to city according to its business potential. More important in the long run, he receives \$2 a week for each account on the licensee's books.

• Personal Attention—This chain is known as the Trattner Secretarial Office System; instead of their own initials, secretaries type "Trattner" as the code on each letter. Each secretary serves only three or maybe four clients all year round, and it isn't hard to trace a letter back to the girl who typed it.

Other people have opened public secretarial services, some in more than one city. But Trattner thinks he established the first nationwide operation



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A P-A-X Business Telephone System will stop this waste—keep employees at their posts —working!

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P-A-X is automatic (dial) telephone equipment of the highest commercial grade—exactly as used by public telephone companies. Its cost is so low you can provide P-A-X telephones throughout your organization—for convenient, time-saving service to everyone. For a detailed report of P-A-X savings in a typical industry, call or write Automatic Electric Sales Corporation (HAymarket 1-4300), 1033 W. Van Buren St., Chicago 7, Illinois.



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PAX is manufactured by the originator of the automatic telephone.

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P-A-X business telephone systems

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and was also first to put secretaries to work in their own homes.

The franchised manager in each city can operate out of his own home—a telephone is his chief essential. In every step of his business he must follow a standardized procedure laid down by Trattner, who briefs him and oversees his first few weeks of operation.

• Personnel—Homework secretaries are mustered through classified ads in newspapers. They have to meet rigid standards: Letters must be properly positioned on stationery, and no overstrikes or erasures are allowed. Girls receive a retainer fee for each client, guaranteeing some earnings each week. Their husbands often serve as messengers for the daily pickups from offices at the close of business, and for the 9 a.m. deliveries of finished work.

• Customers—A businessman who signs up for the service must buy or rent a tape recorder through Trattner, who then keeps him supplied with tapes. Nine out of 10 Trattner customers pay \$20 a week, which entitles them to 170 letters in a four-week period. Some pay as high as \$100 a week; others sign for \$12, which gives them 85 letters in four weeks.

Some clients use the service to augment their own staffs. Some are individuals who can't afford a full-time secretary. Others have bulk mailings at intervals; for one truck dealer, Trattner recruited 50 girls to address 100,000 postcards in two days.

## Creditors Turn Loose Buffalo Container

Last winter, the Buffalo Metal Container Corp. was tobogganing into bankruptcy. Then its creditors came to the rescue, forming an operating committee for the company and agreeing to wait for payment of \$380,000 in debts. Now the creditors' committee has handed control back to the owners, and the container company is off to a fresh start.

The company, formerly known as A. E. Bausenbach, Inc., manufactures containers in which jet engines are shipped and stored. It had plenty of government work when it ran into trouble, but it was over-expanded and under-capitalized. A heavy excess profits tax came due last year, and the company also had to pay \$150,000 in premiums in order to get steel during the strike.

Rather than have the company go into bankruptcy, the seven largest creditors suggested to the others that they keep the 125-man factory going. Now, 30% of the debts have been paid, and the other 70% is in sight.

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Not far away there is an electric power substation like the Allis-Chalmers unit here. It is vital to good electric service because it:

Reduces high voltage from power transmission lines to usable lower voltage for the lines that serve homes, stores and factories.

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Shuts off current instantly to protect service if the line is damaged or dangerously overloaded.

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#### Selling Opportunities Offered

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Wanted: Manufacturers Representatives now handling lines similar to Die Castings. Stamp-ings or Serew Machine Products. Three terri-tories now open Conn; New York City & New Jersey—Send full particulars. RW-9095, Busi-ness Week.

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## COMPANIES BRIEFS

U. S. Plywood Corp. changed president for the first time in its 34 years. Lawrence Ottinger, founder and president since 1919, moved up to chairman of the board, and S. W. Antoville became president. Antöville's background is chiefly in sales; he joined the company in 1921 as a vacation-time office

Western Hotels, Inc., added a 22nd hotel to its chain, claimed to be the largest west of the Mississippi, when it bought the Davenport Hotel in Spokane. The Davenport has 600 rooms, more than any other unit in the West Coast and Rocky Mountain

A \$750,000 motel with 96 air-conditioned rooms is scheduled for completion this winter 7 mi. south of Atlanta. It is billed as the prototype of 100 motels to be built in various parts of the country by Jay J. and Herman B. Sarno of New York.

W. C. Rockefeller resigned as executive assistant to board chairman John Jay Hopkins of Consolidated Vultee Aircraft Corp. He now joins Atlas Corp., as agreed before Hopkins' General Dynamics Corp. bought the Atlas holdings in Convair (BW-May 2'53,p94).

Baseballs will be stiched at a new A. G. Spalding plant in Easley, S. C., opened this week. Operations are starting on a small scale while workers are trained.

Mergers: Plans have been filed for Merritt-Chapman & Scott Corp. of New York to acquire the Fitz Simons & Connell Dredge Dock Co. of Chicago, through an exchange of stock. . . . St. Regis Paper Co. has contracted to buy all the stock of the Cambridge Molded Plastics Co. of Cambridge, Ohio.

A \$21-million plant to make roofing materials will be built in Charleston, S. C., by Bird & Son, Inc., of East Walpole, Mass.

Willeys Motors, Inc., Kaiser subsidiary, bought the remaining 51% interest in Chase Aircraft Co., Inc., of West Trenton, N. J. Chase Aircraft designed C-123 military cargo plane (BW-Sept.5'53,p170). Michael Strukoff, Chase president who had sold Kaiser interests 49% of Chase holdings, is forming a new company, Strukoff Aircraft Corp., for research and development work.

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## Socialist Second Thoughts

The British Trades Union Congress, which meets this month for its annual convention, will have before it a 50-page report of its General Council. Although the report's general tenor is distinctly Socialist, it reflects sober second thoughts.

The council favors nationalization of water supply, but this would merely amount to centralization of facilities now municipally owned. In all other areas, the report warns against haste. It urges that "the case of public ownership and control should be constantly related to the overriding need to improve our economic position in the world."

In other words, responsible policy makers in the British Labor Party and Britain's trade union movement have come to realize that nationalization is not the panacea it was cracked up to be. They now realize that economic soundness rather than Socialist dogmation should decide the nationalization issue. The report observes that nationalization has not been too popular. Examining the Labor government's history from 1945 to 1951, it admits that "it would not be true today to say public opinion is strongly prepared for the transfer of further industries to public ownership."

Most notable is the observation that nationalization cannot solve labor and wage problems. The council notes that it would be "wishful thinking" to assume that "workers' control" over industry can eliminate basic economic factors that prevent otherwise desirable wage increases. Moreover, it is clear that the switch from private to public ownership has not brought any real increase in workers' productivity, which was the ultimate objective of nationalization.

This moderate, common-sense report is one that should be must reading for the voluble partisans of nationalization all over the world. British doctrine and experience have actually given impetus to the wave of nationalization that has taken place since World War II.

Other countries may also reconsider the question. The tide may turn if they, too, realize that it is possible to pursue nationalist policies without going to the extremes of nationalization and expropriation. For the British experience makes it evident that nationalization at any price solves no key problems. Rather, it has meant high taxes, lower efficiency, and less economic strength.

## Overhauling the Law

Pennsylvania, cutting a path through the tangled underbrush of state business laws, has adopted a uniform commercial code bill. The new code supplants outmoded, overlapping, and contradictory legislation. If other states should follow Pennsylvania's example, businessmen might eventually encounter basically identical commercial codes throughout the nation—rather

than the present patchwork of legislation that varies from state to state.

Pennsylvania's new legislation is based on extensive studies by the American Law Institute and the National Conference of Commissioners on Uniform State Laws. As a strictly nonpartisan body, the institute was able to arrive at widely acceptable formulas on such matters as property documents, transfer of holdings, deposits and collections, contracts, and in all other fields of commercial transaction.

We are confident that states can adopt the draft bills suggested by the American Law Institute without feeling that they are surrendering even a particle of their sovereignty; while adopting the basic framework of a uniform law, the legislatures could make allowances for special local conditions. Right now, the state legislatures of Connecticut, Massachusetts, New York, Rhode Island, and Utah are studying the proposed model law.

The other 42 states will soon be able to observe the results of Pennsylvania's pioneer effort. Meanwhile, business communities in every state should draw the attention of legislators to the advantages of streamlined and uniform business laws. We believe that not only can nationwide uniform state laws prove a boon to interstate commerce—they would also help to create and attract enterprises that are now discouraged by antiquated legislation.

#### To Save Iran

President Eisenhower has answered the plea for immediate financial assistance made by Iran's Shah Mohammed Riza Pahlevi. The aid will help the new government pull itself out of the morass made by Premier Mossadegh. More important, it should forestall the possibility that Iran might fall into the Russian orbit.

Iran had all but capitulated to its Soviet neighbor when the Shah's forces staged their successful revolt. Under Mossadegh, who had expropriated the British-owned oil properties, the government had dipped into the civil servants' retirement fund and the operating cash reserves of the government-owned industries. Iran was in debt at home and abroad. Mossadegh's only way out was to make a deal with the Communists.

This would have harmed not only Iran, but the West. Whether the aid pledged by the President will save Iran no one can really say. There is no telling what may happen, because tran's politics and economics are built on the quicksands of fanaticism and emotionalism. It is, for many reasons, the place where our money can never be considered safe, where our good will will always be regarded as some sort of economic imperialism.

Nevertheless the President took the sensible course, We can only hope the effort proves worthwhile.

## Here's how-Here's why

#### PLIOLITE S-5 Cures Corrosion Headaches

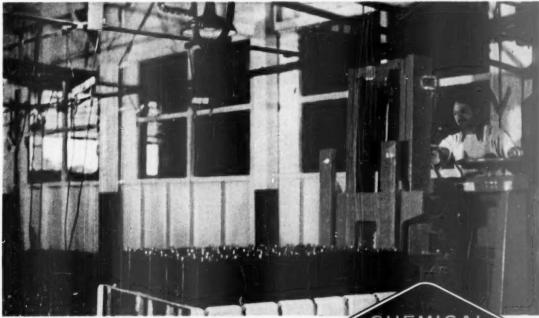
HEADACHES in many a plant stem from the high costs of maintenance, repair or replacement of machinery and equipment damaged by corrosion. The best way to cure these headaches is to stop them before they start. One of the best ways to do that is to use paints made with PLIOLITE S-5.

PLIOLITE S-5 is a synthetic rubber resin. Paints made with it are extremely resistant to the action of acids, alkalies, oils, greases and water. They are easy to apply. They dry

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You can cure your corrosion headaches by protecting your plant with paints based on PLIOLITE S-5. Ask your usual paint supplier about them. Or if you are interested in manufacturing them, write to:

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NO HEADACHES FOR ELECTRIC AUTO-LITE: This Oakland, California plant is painted with Pli-Namel, a product of the Glidden Company and based on PLIQLITE S-5.

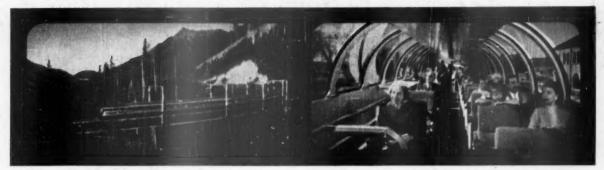
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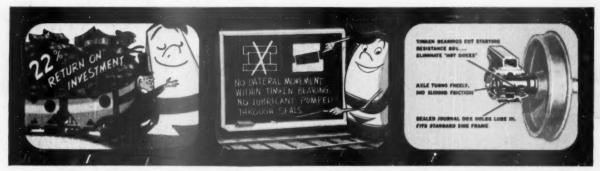
## Here's the next great step in railroading



RAILROADS ARE SOLVING the hot box problem (overheated friction bearings) with "Roller Freight"-freight cars on Timken® roller bearings. It's the next great step in railroading.

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